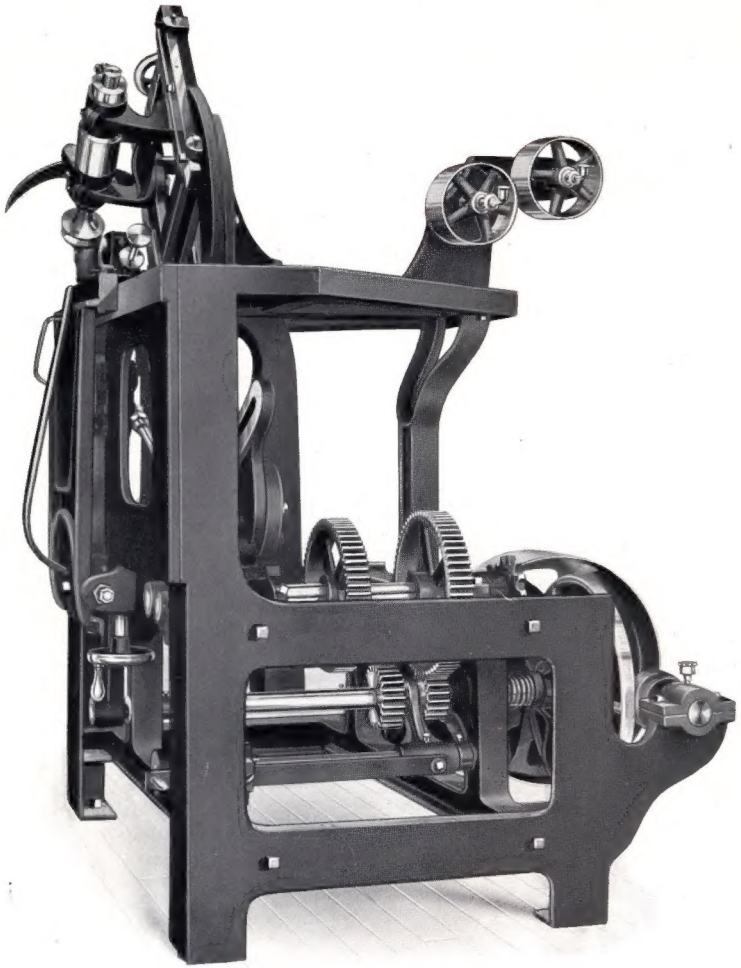
Hanchett Automatic Band Saw Sharpeners

Series 200

All Hanchett automatic band saw sharpeners of this series, 218, 214, etc., are of the same general type of construction and covered by the same general description. This type of sharpener was first introduced by us in 1905, and the important advantages secured in these machines have practically revolutionized the construction of automatic saw sharpeners, and forced the abandonment of the earlier types of sharpeners which were the leading machines at the time this type was first perfected. And many additional improvements have been secured in these sharpeners since they were first introduced. So that these machines today represent not only the important improvements first introduced in this type of sharpener, but also more than six years of extensive use and exhaustive tests of the various features of construction, under all conditions and in hundreds of mills in various parts of the country, resulting in the further refinement and final perfection of the various improvements, and the addition of further features, which make this type of sharpener a very pronounced advance in saw sharpener construction, with advantages which not only insure longer life and better results from saws fitted on these machines, but also greatly facilitate the doing of the work.

One of the most recent, as well as one of the most important improvements which we have secured in the construction of these machines, is our new sliding gear transmission, which eliminates all possibility of variation in the action of the machine, and insures an even feed of the saw. This construction is especially of advantage in securing a uniform action, because of the fact that the working strain of an automatic saw sharpener is necessarily applied unevenly: The machine is subjected to the strain of feeding one tooth up to the emery-wheel, and of raising the emery-wheel, and arbor, and gate, over the point of the tooth, and then this strain is removed while the feed arm is in the return movement and the emery-wheel is descending. So that where a belt is used for the transmission, the tight side of the belt while the emery-wheel is rising becomes the slack side of the belt while it is descending, causing more or less variation in the action of the machine. With the gear transmission all tendency toward unevenness of action is overcome and an absolutely positive and even feed is assured.

Another advantage secured in the sliding gear transmission is the adjustment permitting change of speed of feeding the saw. The sharpener can be set to operate at either a fast or a slow speed, by moving a lever, and the speed can be changed without stopping the machine,—merely move the lever out or in for a faster or a slower speed. There are no belts or other parts to adjust or keep from working loose, in changing the speed, and this adjustment is always under the direct control of the operator without inconvenience or waste of time, enabling the filer to set the machine to feed fast or slow to suit conditions, to hurry the work through when crowded, by setting the machine to grind rapidly until the work is nearly finished, and then adjust to grind lightly—either fast or slow—



No. 214

Hanchett Automatic Band Saw Sharpener

For 14-inch Saws

(Cut shows right-hand machine.—For right-hand mill.)

Capacity	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word R. Hand	Code Word L. Hand
Saws 6″ to 16″ wide	1800 lbs.	14 x 3½	300	**$265.00**	Abbess	Abbey

(For additional code words, see Telegraphic Code, page 6.)

Five Post Brackets and Back Feed furnished with each machine.
Emery-wheel, 12 inches Diameter, 15/16-inch Hole.
Emery-wheel and Belt furnished for **$5.00** extra.

This machine equipped with Electric Motor. Price on application.
For Export, Boxed for Ocean Shipment, 2500 lbs., 85 cubic feet.

the last time around the saw, to give a smooth finish and put the teeth into the best possible condition. The change of speed is easily made while the feed arm is in the return movement, as there is then no appreciable load on these parts.

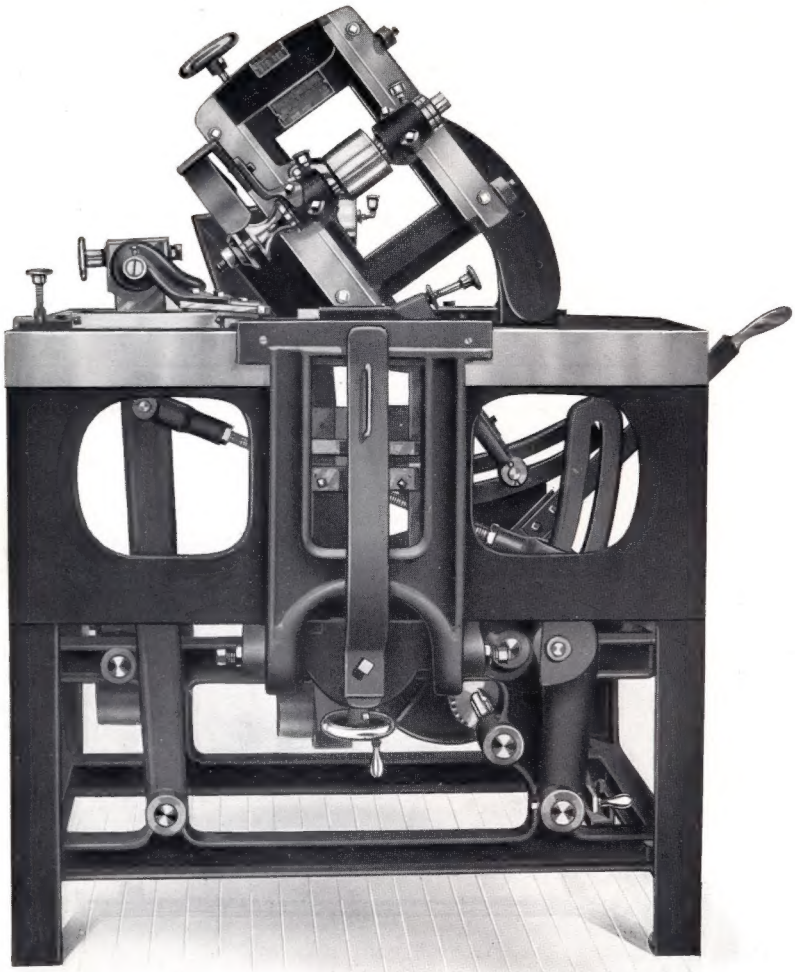
This feature of change of speed in the gear transmission is provided with all of the sharpeners excepting the small Nos. 207, 228 and 205 machines, and with these small machines any speed can be secured by adjusting the friction on the countershaft.

Another important feature first introduced in Hanchett sharpeners and further improved in our latest machines, is the direct belt drive for the emery-wheel arbor, whereby the emery-wheel is driven by one long belt direct from the countershaft, eliminating the two short belts formerly used, together with the extra pulleys, shafts, brackets, etc. The importance of this construction has been so evident and the advantages secured have been so generally recognized that other manufacturers have been obliged to adopt this feature in their machines. This feature of Hanchett machines, however, continues to maintain its marked superiority of construction and has recently been still further improved. It is, first, much simpler than any other construction, requiring only the two idlers with the supporting bracket, in place of the extra shafts, brackets, roller, spring, and other small parts used on other machines; and, second, it provides a longer and easier belt action by bringing the countershaft lower on the sharpener, at the base of the machine, thus further lessening vibration. This action is free from all complication and is absolutely uniform, and there is less strain on the belt and on the pulleys and on the emery-wheel arbor gate slides, than with any other construction now in use.

A further important consideration in keeping automatic sharpeners working smoothly is means for taking up wear, to keep the parts from working loose and thus causing vibration and unevenness of action. This is a feature fully provided for in Hanchett sharpeners, and in fact was first emphasized in the construction of Hanchett machines. So long ago as in 1905 Hanchett sharpeners were equipped with beveled gibs for the heads for taking up all wear, and forked connections were furnished for the levers to insure a straight center pull and overcome all tendency to twist the levers to one side and cause them to work loose in the bearings.

And the feed arm and levers of the machines are pivoted on shafts with babbitted bearings on both the front and back frames; and the connecting lever to the feed arm is attached well up to the top of the arm near where the finger engages the saw in forcing it around the machine, thus lessening the strain on the machine and insuring a steady, even feed.

Every provision is made in the construction of these machines to keep the parts from working loose and to take up wear, to insure a smooth action at all times. This not only insures better results but adds to the life of the machine, as one of the greatest causes of wear and deterioration is vibration, and a smooth action adds much to the durability of the construction.



No. 212

Hanchett Automatic Band Saw Sharpener

For 12-inch Saws

(Cut shows right-hand machine.—For right-hand mill.)

Capacity	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word R. Hand	Code Word L. Hand
Saws 4″ to 14″ wide	1600 lbs.	12 x 3	300	**$220.00**	Abbot	Abduct

(For additional code words, see Telegraphic Code, page 6.)

Five Post Brackets and Back Feed furnished with each machine.

Emery-wheel, 12 inches Diameter, 15/16-inch Hole.

Emery-wheel and Belt furnished for **$4.75** extra.

This machine equipped with Electric Motor. Price on application.

For Export, Boxed for Ocean Shipment, 2100 lbs., 80 cubic feet.

The main working parts are placed low on the machine within the heavy square frame at the base, giving the greatest rigidity and strength and permitting the top frame to be cut away at the back without weakening the construction, thus affording easy access to the adjustable cam and other parts, for making adjustments.

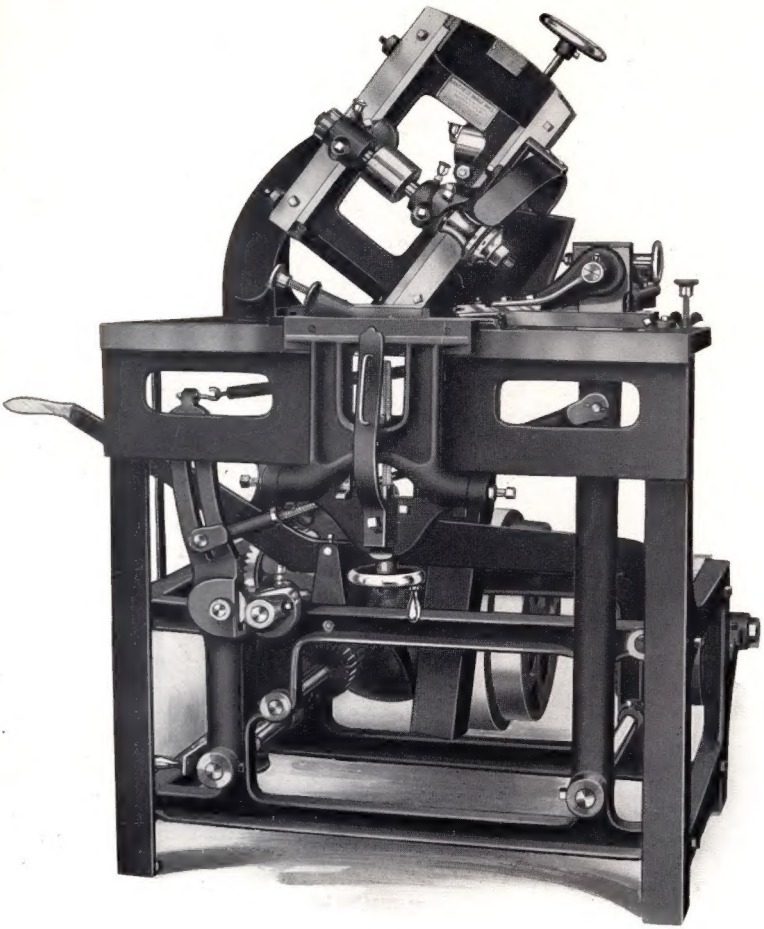
The emery-wheel arbor is adjustable on the head, so that a straight emery-wheel can be used to the same advantage as a concave. The small Nos. 207, 228 and 205 sharpeners provide one speed for the emery-wheel. Two speeds for emery-wheel are regularly provided on the larger sharpeners, three when preferred.

These machines are equipped with the Hanchett patented adjustable cam, affording a wide range of adjustment for different shaped teeth and doing away with the necessity for filing or grinding the cam or securing new cams when desiring to grind a different shaped tooth. This is a practicable adjustable cam with a range of adjustment covering all ordinary requirements, which has proved its value in the filing room. Two adjustable cams are furnished with each machine, and the range of adjustment is increased by the arrangement of the slot in the lift lever.

The feed arm operates to hold the saw down, and the saw rest is so placed in connection with the push of the feed finger as to prevent the saw climbing. And in connection with the feed finger and feed arm we provide a hardened steel slide and an attachment for taking up all side motion, to insure that there shall be no lost motion in the action of the feed finger. The feed finger is made separate from the holder so as to be easily replaced when worn. It is a square piece of self-hardening steel, can be turned over in the holder and moved endwise to provide many wearing places, and is adjustable vertically to engage the teeth at any point. All Hanchett sharpeners are equipped with finger bumper or stop, which is adjusted by hand wheel and can be locked at any position to insure positive stop of the feed finger at any point.

All Hanchett sharpeners are perfectly adapted for either gear or friction drive. In the Pacific Coast states, owing to the unusually severe character of the service required, and the damp atmosphere in many places, the gear drive has proved superior to either friction or belt drive, so that in Pacific Coast shipments (except on Nos. 210, 208, 207, 228 and 205 sharpeners, for light saws), the sharpeners are regularly equipped with gear drive unless otherwise specified, and the above mentioned lighter machines are equipped with gear drive when preferred, without extra cost. For all other sections, however, the friction drive has proved generally superior, and the machines are so equipped unless gears are specified, although no extra charge will be made for gears when desired in place of friction, or for friction when desired in place of gears.

The construction of the back feed furnished with the Hanchett sharpeners is such that the back feed shaft must make a complete revolution for each tooth, so that there is no variation in the action of the back feed finger, which is adjustable to any length of stroke, and can be turned back out of the way when removing or putting on a saw.



No. 210

Hanchett Automatic Band Saw Sharpener

(Cut shows left-hand machine.—For left-hand mill.)

Size	For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word R. Hand	Code Word L. Hand
No. 210	4 to 10″	1250 lbs.	12 x 3	300	**$175.00**	Abed	Abet
No. 208	2 to 8″	1150 lbs.	12 x 3	300	**150.00**	Abettor	Abeyance

(For additional code words, see Telegraphic Code, page 6.)

Five Post Brackets and Back Feed furnished with each machine.

Emery-wheel, 12 inches Diameter, 15/16-inch Hole.

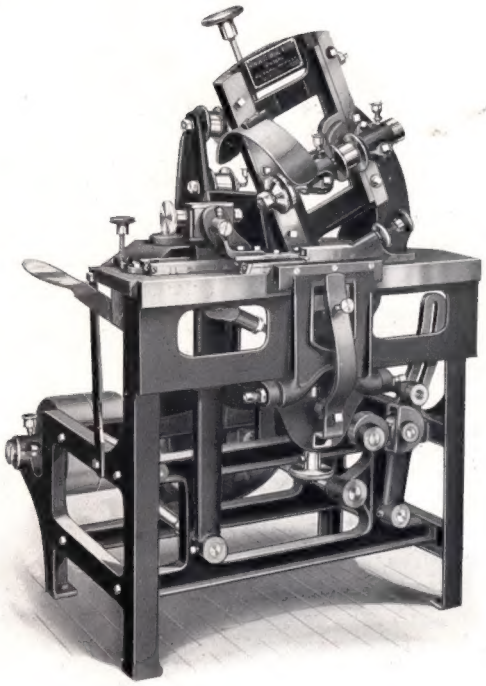
Emery-wheel and Belt furnished for **$4.00** extra.

These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

No. 210, 1700 lbs., 45 cubic feet. No. 208, 1600 lbs., 44 cubic feet.

See general description pages 17 to 21, applying to this machine.



No. 207

Hanchett Automatic Band Re-Saw Sharpener

(Cut shows right-hand machine.—For right-hand mill.)

For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word R. Hand	Code Word L. Hand
2 to 7″	650 lbs.	8 x 2½	300	**$110.00**	Abhor	Abide

(For additional code words, see Telegraphic Code, page 6.)

Set of Pulleys and Stands furnished with each machine.

Emery-wheel, 8 inches Diameter, ⅝-inch Hole.

Emery-wheel and Belt furnished for **$2.00** extra.

This machine equipped with Electric Motor. Price on application.

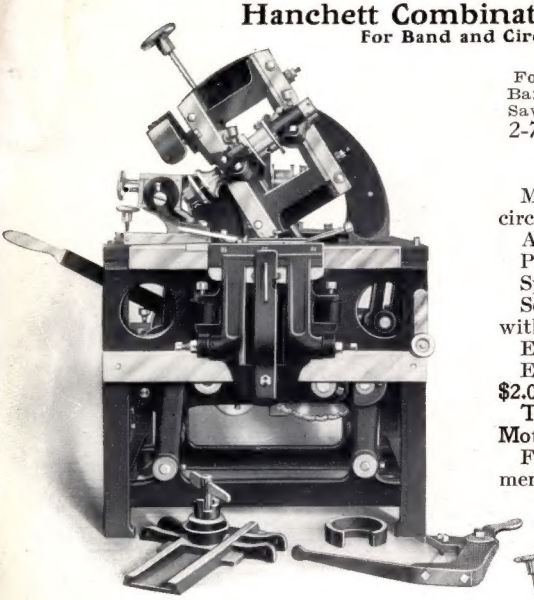
For Export, Boxed for Ocean Shipment, 925 lbs., 35 cubic feet.

See general description pages 17 to 21, applying to this machine.

No. 228

Hanchett Combination Sharpener

For Band and Circular Saws



For Band Saws	For Circular Saws	Price	Code Word R. Hand	Code Word L. Hand
2-7″	6-28″	$125.00	Abiga	Abijor

(For additional code words, see Telegraphic Code, page 6.)

Machine can be changed from band to circular and vice versa, in a few seconds.

Approximate shipping weight, 500 lbs.

Pulleys on Countershaft, 8 x 2½.

Speed, 340.

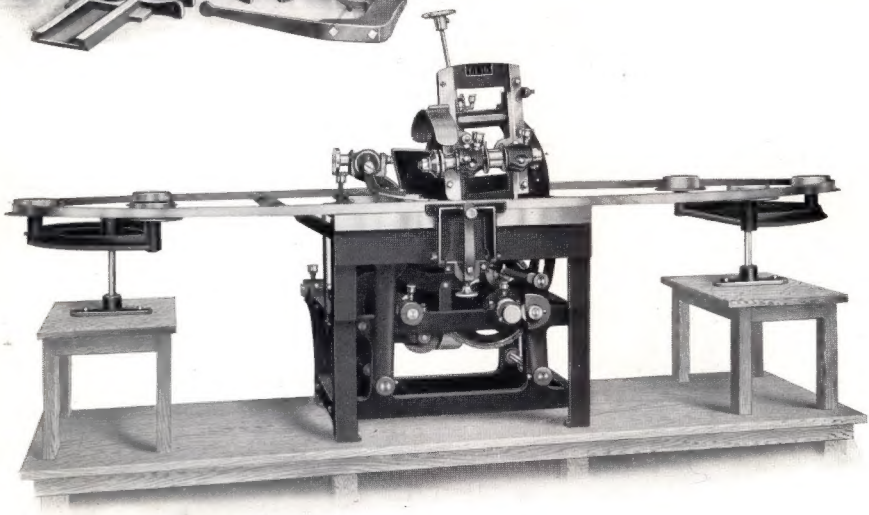
Set of Pulleys and Stands furnished with each machine.

Emery-wheel, 8″ Diameter, ⅝″ Hole.

Emery-wheel and Belt furnished for $2.00 extra.

This machine equipped with Electric Motor. Price on application.

For Export, Boxed for Ocean Shipment, 700 lbs., 32 cubic feet.



No. 205

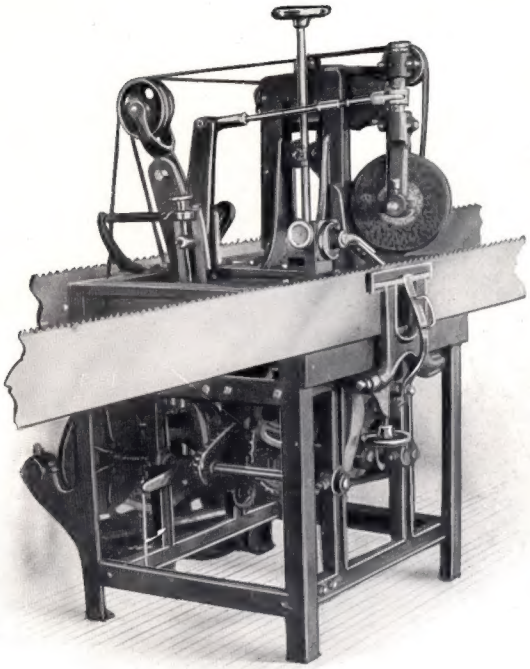
Hanchett Automatic Band Re-Saw Sharpener

(Cut shows right-hand machine.—For right-hand mill.)

For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word R. Hand	Code Word L. Hand
⅜ to 5″	450 lbs.	8 x 2½	340	$90.00	Abiker	Abikron

The only automatic sharpener equipped for grinding narrow band saws down to ⅜ inches wide. More economical than files, does perfect work, operated very rapidly, adjustable to feed the saws at any speed. Same general construction as our larger sharpeners. See general description pages 17 to 21. Send template of teeth to be ground.

For Export, Boxed for Ocean Shipment, 625 lbs., 23 cubic feet.



Hanchett Automatic Cross-cut Band Saw Sharpener

Size	For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word
No. 3	Up to 8″	600 lbs.	8 x 2½	340	**$185.00**	Ability
No. 2	Up to 10″	1200 lbs.	12 x 3	300	**220.00**	Abittor

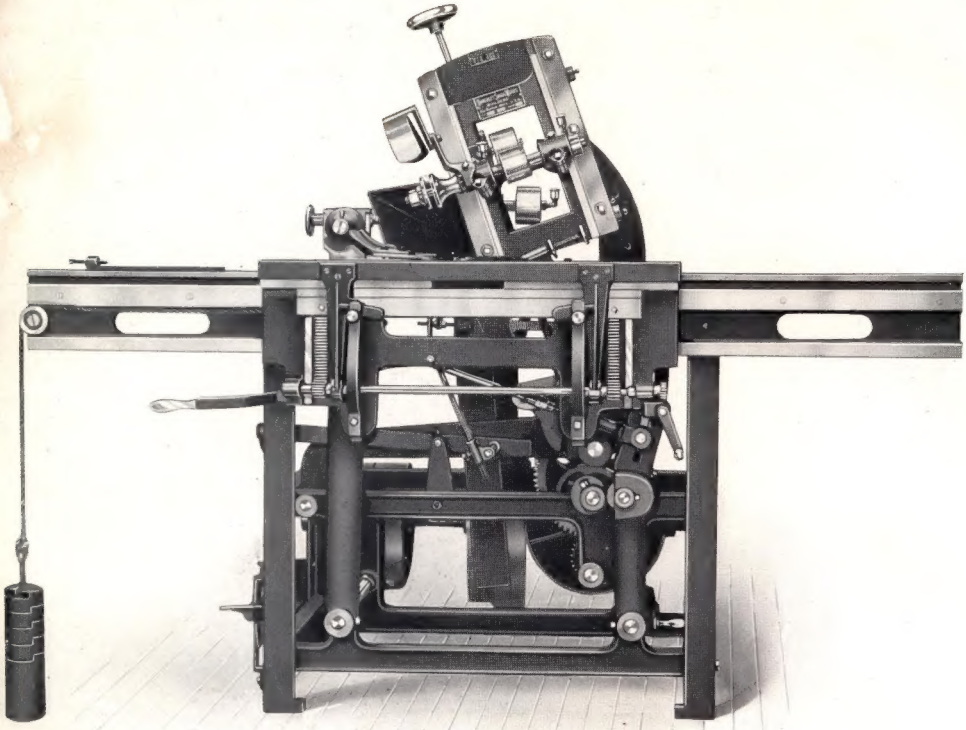
(For additional code words, see Telegraphic Code, page 6.)

Set of Pulleys and Stands furnished with each machine.
Emery-wheel for No. 3, 8 inches Diameter, ⅝-inch Hole.
Emery-wheel and Belt furnished for **$2.50** extra.
Emery-wheel for No. 2, 12 inches Diameter, 15/16-inch Hole.
Emery-wheel and Belt furnished for **$4.75** extra.

These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment
No. 3, 900 lbs., 38 cubic feet. No. 2, 1700 lbs., 75 cubic feet.

These machines are the only cross-cut band saw sharpeners manufactured. They are a combination of our band and circular saw sharpeners, and embody the good qualities of both. They are equipped with our friction feed, direct drive, adjustable cam, and other improvements described in connection with our band saw sharpeners, and have the same beveling attachment that is a feature of our sharpeners for circular saws. Several of these machines have been furnished for sharpening cross-cut band saws, the first ones now having been in continuous operation for several years and have proved perfectly adapted to this service.



No. 3

Hanchett Automatic Gang Saw Sharpener

Size	For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word
No. 3	28 to 52″ between tabs	1050 lbs.	12 x 3	300	**$190.00**	Ablaze
No. 2	28 to 72″ between tabs	1350 lbs.	12 x 3	300	**250.00**	Ablegate

Emery-wheel, 12 inches Diameter, 15/16-inch Hole.
Emery-wheel and Belt furnished for **$4.00** extra.
These machines equipped with Electric Motors. Prices on application.

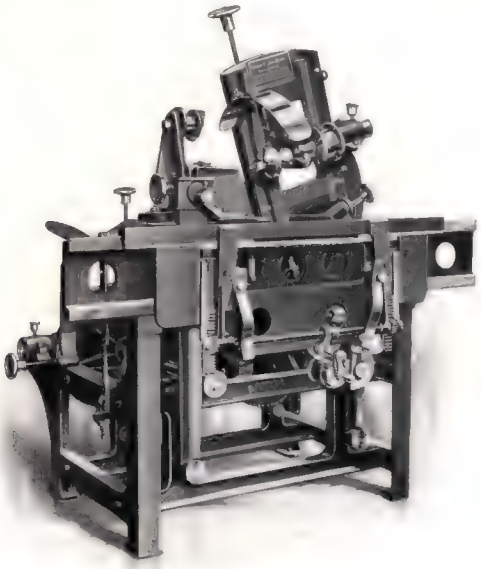
For Export, Boxed for Ocean Shipment
No. 3, 1700 lbs., 64 cubic feet. No. 2, 2000 lbs., 85 cubic feet.

The Hanchett Gang Saw Sharpeners have the same general features of construction as the Hanchett band saw sharpeners as described on pages 17 to 22, including the direct belt drive for the emery-wheel arbor, sliding gear transmission with variable speed of feeding saw, adjustable cam, beveled gibs of head for taking up wear, improved feed finger construction, forked feed arm connections, etc.

The saw carriage runs on dust proof ways, and the tension of the carriage in its bearing on the carriage track or ways is adjustable and so arranged that by raising the lever at the left end of the carriage, after grinding the last tooth at the end of the saw, the tension is removed so that the weight returns the carriage to the starting point without effort on the part of the operator, thus giving perfect control of the carriage and enabling very rapid and easy operation, as the

carriage returns itself when the lever is raised, without requiring the operator to pull back the weight of the carriage. The clamp for holding the saw is locked in place by a lever at each end, which insures that the saw shall be held rigid the entire length and will not spring at either end, and the clamp opens down so that the saws are easily removed from or placed in the carriage. The head is raised by a foot lever as shown in the cut (or by hand lever if preferred), which at the same time raises the feed finger out of the throat of the tooth to permit the return of the carriage.

The carriages furnished with the Hanchett gang saw sharpeners are adjustable so that one carriage will accommodate several different lengths of saws, the different carriages accommodating saws with distances between tabs as follows: 18½ to 28″, 26 to 32″, 28 to 40″, 40 to 52″, 52 to 62″, and 62 to 72″, respectively.



No. 4

Hanchett Automatic Gang Saw Sharpener

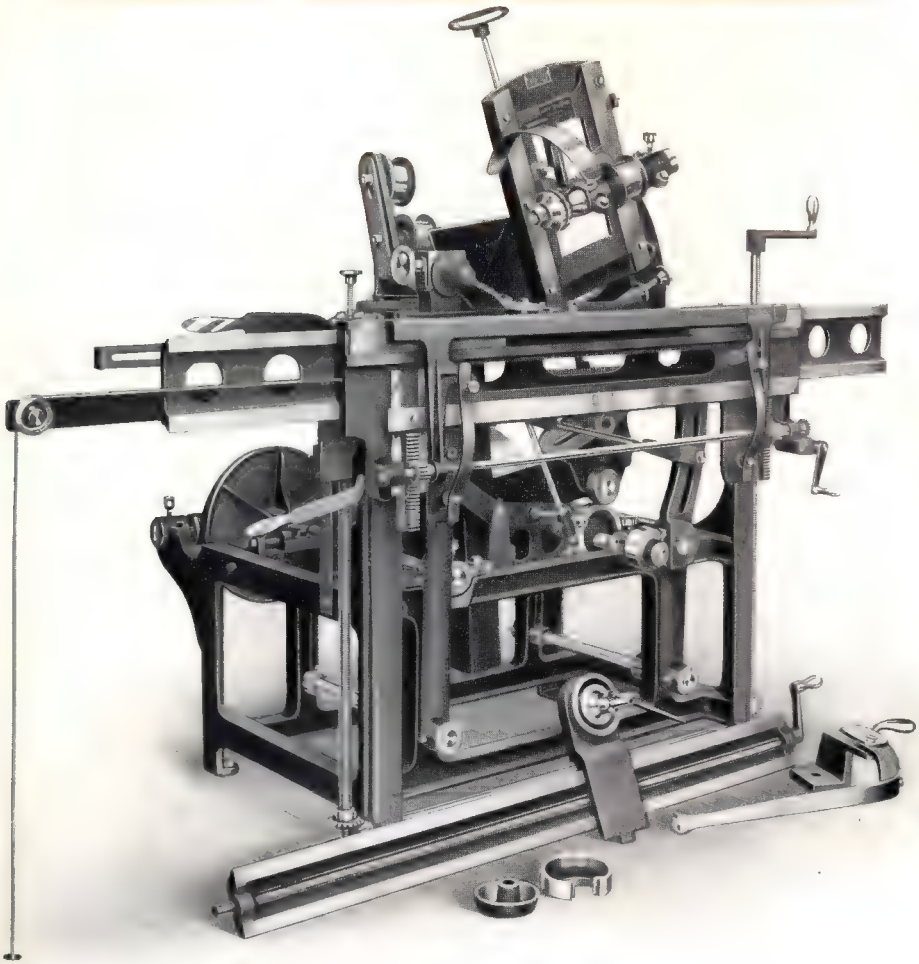
For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word
Up to 32″ between tabs	500 lbs.	8 x 2½	300	**$125.00**	Abode

Emery-wheel, 8 inches Diameter, ⅝-inch Hole.
Emery-wheel and Belt furnished for **$2.00** extra.

This machine equipped with Electric Motor. Price on application.

For Export, Boxed for Ocean Shipment, 800 lbs., 35 cubic feet.

The Hanchett No. 4 Gang Saw Sharpener is identical with the larger No. 2 and No. 3 Gang Sharpeners, except that it is built on a smaller frame. It has the same adjustments for accurately grinding any shape of tooth and any width of saws, and is fitted either with carriage for saws 18½ to 28 inches between tabs or for saws 26 to 32 inches between tabs, but has no return attachment for the carriage, as the saw carriage is so light it is not deemed necessary. It has all of the other features of our larger gang grinders and is a very popular machine with users of pony gangs.



No. 6

Hanchett Automatic Saw Sharpener

For Gang and Circular Saws

For Saws: Gang	For Saws: Circular	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word
Up to 72″ between tabs	10 to 72″ diameter	1400 lbs.	12 x 3	300	**$280.00**	Abound

Emery-wheel, 12 inches Diameter, 15/16-inch Hole.

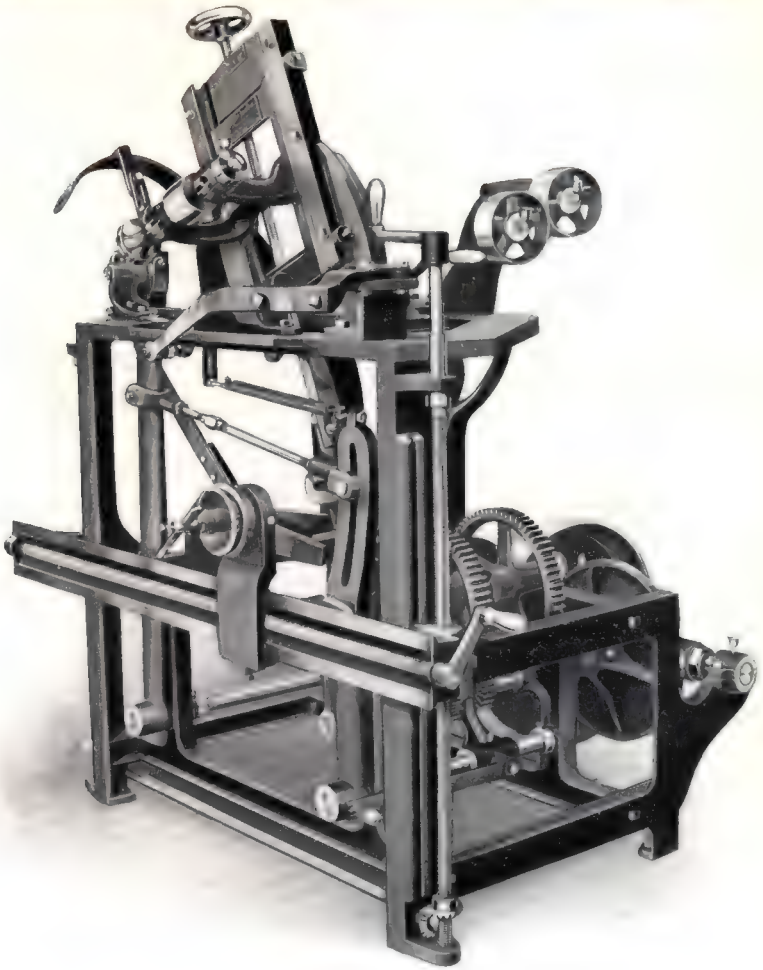
Emery-wheel and Belt furnished for **$4.00** extra.

This machine equipped with Electric Motor. Price on application.

For Export, Boxed for Ocean Shipment, 2100 lbs., 90 cubic feet.

This machine has the same general construction as the large No. 2 and No. 3 Gang Sharpeners described on the preceding pages, having all the improved features and adjustments of our regular gang saw sharpeners, and in addition is equipped with attachments for grinding circular saws, these attachments including the circular saw cross-bar and side screws with vertical and horizontal adjustments the same as on our regular circular saw sharpeners. The gang saw carriage is arranged so that it can be very easily and quickly removed and the circular saw attachments substituted, and vice versa, so that the machine can be changed from circular to gang or gang to circular saws with very little loss of time.

This sharpener was designed in response to a demand from certain foreign countries for a machine to accommodate both gang and circular saws. It is perfectly adapted to both and is giving highest satisfaction in some of the largest mills in Europe.



No. 272

Hanchett Automatic Circular Saw Sharpener

Size	For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word
No. 272	10 to 72″	1000 lbs.	12 x 3	300	$220.00	Abridge
No. 284	12 to 84″	1300 lbs.	12 x 3	300	250.00	Absolve

Emery-wheel, 12 inches Diameter, 15/16-inch Hole.

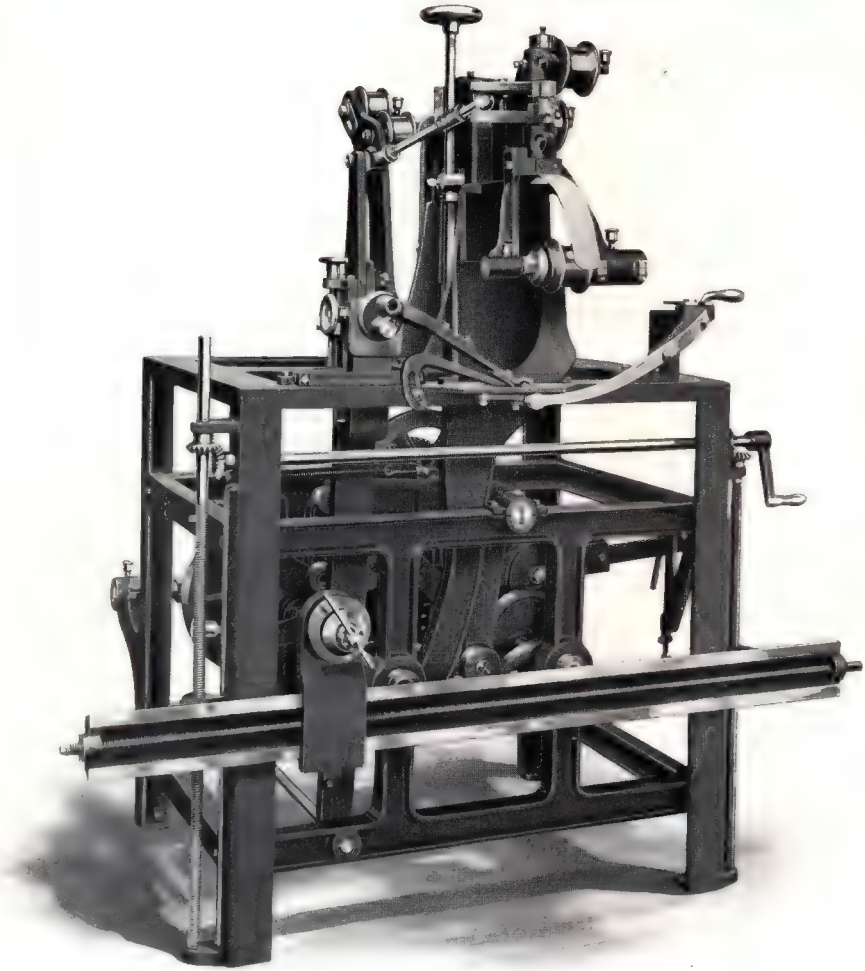
Emery-wheel and Belt furnished for No. 272 for $4.00 extra; for No. 284, $4.75 extra.

These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

No. 272, 1700 lbs., 52 cubic feet. No. 284, 2000 lbs., 85 cubic feet.

The No. 272 and No. 284 sharpeners are designed for circular rip saws only. This is the regular Hanchett band saw type of sharpener adapted to circular saws, with all the band saw sharpener improvements as described on pages 17 to 21, with the direct drive for emery-wheel arbor, sliding gear transmission with variable speed of feeding saw, adjustable cam, connecting rod attached well up near top of the feed arm, with forked feed arm and feed lever connections, to lessen the strain on the machine. The head or emery-wheel arbor gate is made very rigid, with the slides beveled so that all wear can be taken up. These machines are designed especially for heavy, accurate grinding, and are smooth running, free from vibration, very durable, and absolutely accurate.



Hanchett Automatic Rip and Cross-cut Circular Saw Sharpener

Size	For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word
No. 784	10 to 84″	1500 lbs.	14 x 3½	275	$265.00	Accede
No. 768	9 to 68″	1150 lbs.	12 x 3	300	200.00	Accent
No. 784	For Rip Saws only, 1200 lbs.				230.00	Accord
No. 768	For Rip Saws only, 1000 lbs.				180.00	Accost

Emery-wheel, 12 inches Diameter, 15/16-inch Hole.
Emery-wheel and Belt for No. 784 Sharpener furnished for **$5.50** extra.
Emery-wheel and Belt for No. 768 Sharpener furnished for **$4.75** extra.

These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

No. 784, Rip and Cross-Cut
2000 lbs., 85 cubic feet.
No. 768, Rip and Cross-Cut
1500 lbs., 55 cubic feet.

No. 784, Rip only
1800 lbs., 85 cubic feet.
No. 768, Rip only
1350 lbs., 55 cubic feet.

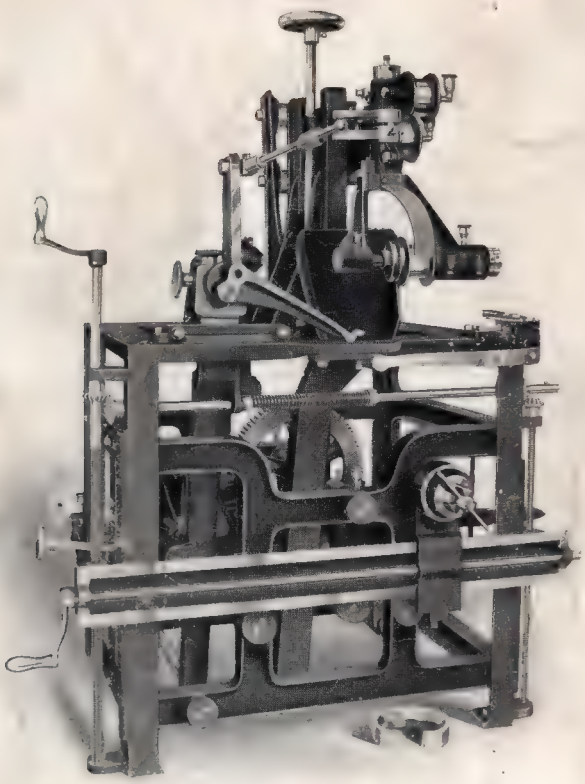
Rip and Cross-cut Circular Saw Sharpeners

The Hanchett automatic sharpeners for rip and cross-cut circular saws have developed a tremendous popularity during the comparatively short time they have been on the market. These sharpeners were first made in three sizes—No. 1 for saws up to 84″, No. 2 for saws up to 68″, and No. 3 for saws up to 28″; but there has been such a strong demand for a fourth size to come between the No. 2 and No. 3, in order to make it possible to secure a machine of this type for saws between 28 and 48 inches diameter at a lower price than it was possible to supply the No. 2 size, that we have finally perfected a fourth size of this sharpener, known as No. 748, with a capacity up to 48 inches. We have also been able to make some further improvements in this type of sharpener, which we have adopted on all four sizes of this machine, and have renumbered the first three sizes, so that the latest models of these sharpeners are now known as Nos. 784, 768, 748 and 730, as listed in this catalog.

The adjustments of these sharpeners are especially convenient for accommodating a wide variety of saws on one machine to the greatest advantage, requiring very little time to change from one saw to another. The principal adjustments are all controlled by hand wheels by which the adjustments can be changed while the machine is running, so that when a saw is put on, the machine can be started and the adjustments quickly changed to accommodate the saw, without loss of time in stopping and starting the machine to try the adjustments as on the older machines where the change of adjustment is not readily made and repeated changes and trials are necessary before the right adjustment can be definitely determined.

In addition to the usual vertical adjustment, the emery-wheel arbor is adjustable horizontally to secure a perfect center of the emery-wheel over the saw, by simply turning a hand-wheel. The length of stroke of the feed finger is controlled by hand-wheel adjustment in the same way, as also is the degree of bevel on cut-off saws, adjustment to any degree of bevel from 0 to 45 degrees being secured or any change in the bevel made without stopping the machine, a nickel-plated graduated scale indicating any change in this adjustment. The shifting device controlling the bevel is positive in action and of the most simple construction yet devised for this service. These parts operate very smoothly and evenly, without the jerk and uneven strain of the older constructions. They positively will not wear loose in any way and the action is absolutely accurate. These machines will either bevel both sides of the teeth or bevel the front and square the back, or vice versa. Unless otherwise specified we send the sharpeners equipped for beveling both sides only.

These machines have the same general features found in the Hanchett band saw sharpeners, including the direct drive for the emery-wheel arbor, adjustable cam for securing different shapes of teeth, and beveled gibs for the head for taking up all wear. They are equipped with a throat adjuster independent of the vertical adjustment of the head, controlled by hand-wheel placed within easy reach of the operator, enabling quick and easy adjustment for depth of throat. The emery-wheel arbor has strong, substantial bearings both sides of the emery-wheel, holding the emery-wheel perfectly true and lessening wear on the machine. Two speeds for the emery-wheel are provided on the No. 784 and No. 768 machines, one speed on the No. 748 and No. 730, and all of these machines are adjustable to feed the saw at any speed. They are equipped with either friction or gear drive, as preferred. But as we consider the friction drive superior, they are equipped with friction unless otherwise specified.



Hanchett Automatic Rip and Cross-cut Circular Saw Sharpener

Size	For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word
No. 730	6 to 30″	600 lbs.	8 x 2½	340	$125.00	Acid
No. 730	For Rip Saws only	500 lbs.	8 x 2½	340	110.00	Acquit
No. 748	8 to 48″	850 lbs.	10 x 2¾	325	175.00	Acquittance
No. 748	For Rip Saws only	750 lbs.	10 x 2¾	325	165.00	Acquiver

Emery-wheel for No. 730, 8 inches Diameter, 5/8-inch Hole; No. 748, 10 inches Diameter, 15/16-inch Hole.

Emery-wheel and Belt furnished for No. 730 for $3.00 extra; for No. 748, $4.00 extra.

These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

No. 730, 850 lbs., 30 cubic feet. No. 748, 1000 lbs., 48 cubic feet.
No. 730, Rip only, 800 lbs., 30 cubic ft. No. 748, Rip only, 950 lbs., 48 cubic ft.

The No. 730 sharpener with our improved stroke adjuster is especially well equipped for handling fine tooth saws.

No. 31

Hand Sharpener and Gummer

For Saws	Approximate Shipping Wt.	Tight & Loose Pulleys	Speed	Price	Code Word
6 to 72″	320 lbs.	5 x 2″	600	$31.00	Across

Emery-wheel, 12 inches Diameter, 15/16-inch Hole.
Emery-wheel and Belt furnished for $3.00 extra.

This machine equipped with Electric Motor. Price on application.

For Export, Boxed for Ocean Shipment, 600 lbs., 30 cubic feet.

Our Hanchett No. 31 Hand Gummer is a very popular sharpener with those who want a good practical machine at a low price. It is suitable for all classes of rip saws from 6 to 72 inches in diameter. It is strong, solid and rigid, and only the best of material is used in its make-up. It is very simple, easily and quickly adjusted and almost impossible to get out of order. We have sold several hundred of these machines and we have yet to hear of a single complaint.

No. 12 C

Hanchett Hand Sharpener and Gummer

Size	For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word
No. 12-C	8 to 84″	570 lbs.	4¾ x 2¼	400	$90.00	Acre
No. 12-R	8 to 84″	480 lbs.	4¾ x 2¼	400	60.00	Acrid

Emery-wheel, 12 inches Diameter, 15/16-inch Hole.
Emery-wheel and Belt furnished for $3.25 extra.

For Export, Boxed for Ocean Shipment
No. 12-C, 800 lbs., 45 cubic feet. No. 12-R, 750 lbs., 45 cubic feet.

No. 12 C Hand Sharpener and Gummer

For Rip and Cross-cut Saws

In designing this sharpener originally we succeeded in making a number of important improvements over the ordinary hand sharpener, and overcame many of the disadvantages experienced with the old-style sharpeners; and this machine has recently been further improved by adding a number of features which actual experience has proven to greatly facilitate the work, among which are,—a longer belt drive for the emery-wheel arbor, a dust-proof protection for the plunger which controls the up and down movement, a long spring to act with the weight in balancing the head, adjustment for tightening the belt, adjustable saw rest, and a hand wheel adjustment for clamping the cross-head in any position on the circle without requiring a wrench.

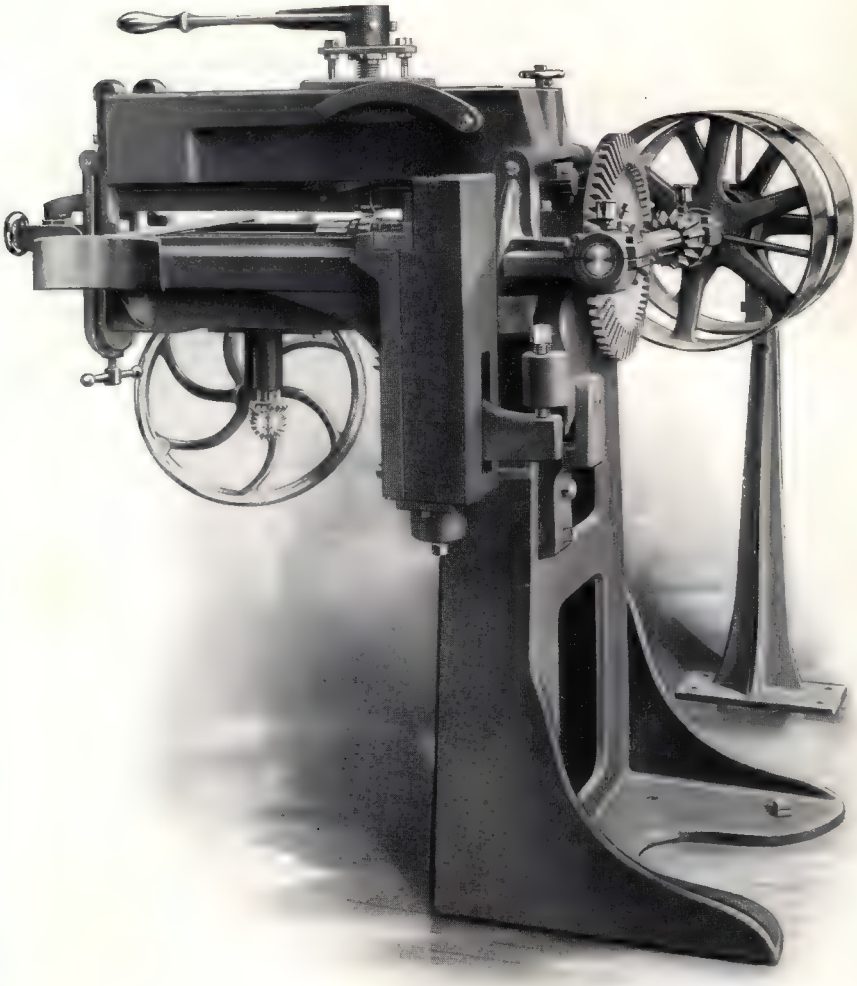
The movement of the emery-wheel is perfectly perpendicular, and thus exactly centers the saw during the entire operation, does not rise on a circle like the old style hand gummers. Most filers will readily appreciate that this fact alone insures a better ground tooth and with less time and labor. The emery-wheel arbor support is made in two parts so that the wheel can be tilted, and thus a straight emery-wheel can be used to the same advantage as a concave; and the arbor is adjustable over the saw so as to secure a perfect center on all saws.

The cross-head is arranged for handling the saw with the greatest ease and precision. The heaviest saw is readily adjusted to any desired position without requiring the operator to lift it by hand. By means of a strong leverage the saw can be easily picked up from the floor and raised to any height and clamped by turning a hand wheel, and then adjusted to any position by turning the long screw. The circle to which the cross-bar is attached is hung to swing in either direction to give any desired bevel on cut-off saws and in whatever position it is placed for beveling, it always maintains the saw exactly under the center of the emery-wheel. A graduated scale is provided to insure uniformity in setting for any desired bevel. A simple and practical throat adjuster is also provided to insure that all the teeth shall be of uniform depth.

With the new features which have been added, this machine stands next to an automatic sharpener in its operation. The adjustments give the filer complete control of the grinding. A perfect balance is secured for the head in whatever position it is placed, so that the emery-wheel is controlled in the up and down movement with the slightest effort. Any sluggishness in this action greatly interferes not only with doing rapid work, but with the securing of uniform results, and we have secured an action which is responsive to the slightest touch. We consider this construction, with the long belt drive for the emery-wheel arbor, the cross-head arrangement for adjusting the saw, and the perfectly balanced action for raising and lowering the emery-wheel, with the simple but strong and rigid standard and base of the machine, the best construction yet devised for sharpening and gumming by hand.

No. 12 R Sharpener and Gummer

The No. 12-R Hand Gummer is made the same as the No. 12-C described above, except that it does not have the adjustment for keeping the saw directly under the center of the emery-wheel while grinding a bevel on cut-off saws, being designed more especially for rip saws.



No. 314

Hanchett Band Saw Stretcher and Re-Toother

Hanchett Band Saw Stretchers and Re-Toothers

The Hanchett Movable Roll Saw Stretchers and Retoothers are made very durable throughout and designed to stand the hardest service and do perfect work without springing or racking under heavy duty.

The rolls are movable laterally to reach any part of the saw blade without shifting the saw. The shifting wheel for moving the rolls is adjustable to any position to suit the convenience of the operator. This is strictly a Hanchett feature and is found on no other stretcher. Each roll can be moved separately for the aligning of the shearing edges of the roll.

The Hanchett Stretchers are fitted with a most efficient and durable retoother. The construction consists of a simple cam and lever arrangement of great power and very few parts, eliminating entirely the large and small gears, clutches, shafts, brackets, etc., used on the old style retoother, so it is practically impossible for a Hanchett Retoother to become broken or get out of order. Our retoothing attachment is generally conceded to be the strongest, simplest and most efficient retoother on the market. It is fitted with an automatic tooth stop and spacer for the spacing of the saw teeth accurately and automatically. It is a simple device, built strong, and positively assures the even spacing of the saw.

Another very handy attachment furnished with the Hanchett stretchers and retoothers is the hip lever for throwing the clutch out or in instantly without the use of the hands and without obliging the operator to take one foot from the floor. The retoother may be started or stopped by simply pushing against the lever with the hip.

We carry in stock all standard sizes and shapes of retoothing dies, but we charge no extra price for special dies made to order.

Size	For Saws	Approx. Shipping Weight	Pulleys on Countershaft	Speed	Price	Code Word
No. 318 (With Retoother)	Up to 18″	1350 lbs.	15 x 5	100	$350.00	Bang
No. 318 (Without ")	Up to 18″	1100 lbs.	12 x 4	100	300.00	Bank
No. 316 (With ")	Up to 16″	1300 lbs.	15 x 5	100	325.00	Banner
No. 316 (Without ")	Up to 16″	1050 lbs.	12 x 4	100	265.00	Bantam
No. 314 (With ")	Up to 14″	1175 lbs.	15 x 5	100	265.00	Banter
No. 314 (Without ")	Up to 14″	950 lbs.	12 x 4	100	215.00	Baptize

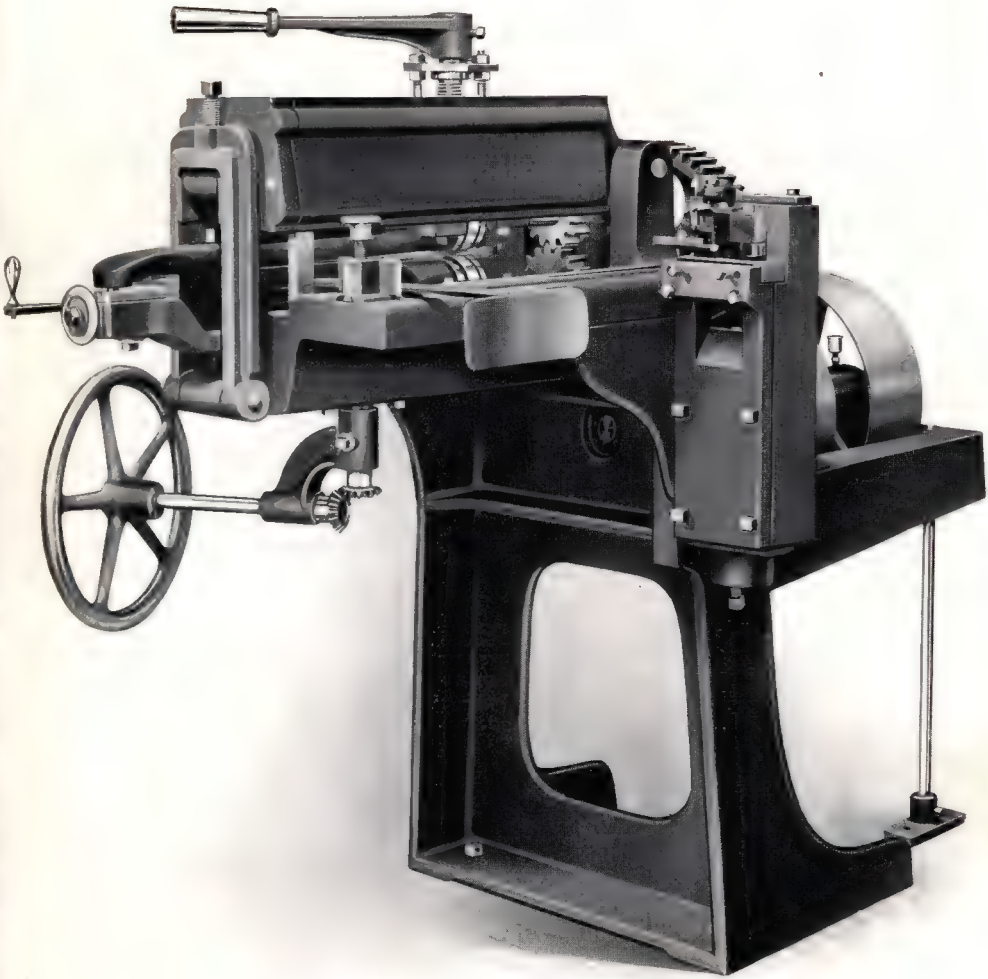
These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

No. 318		No. 316	
With Retoother	Without Retoother	With Retoother	Without Retoother
1800 lbs., 57 cubic feet.	1700 lbs., 57 cubic feet.	1700 lbs., 55 cubic feet.	1600 lbs., 55 cubic feet.

No. 314 With Retoother 1450 lbs., 53 cubic feet.

No. 314 Without Retoother 1250 lbs., 53 cubic feet.



No. 814

Hanchett Pacific Coast Band Saw Stretcher and Re-Toother

(Extra Heavy)

Pacific Coast Stretchers

These machines are built especially heavy, for the Pacific Coast requirements, for handling the heaviest saws. The general construction is the same as the No. 314 to 318 stretchers and retoothers described on page 37, except that the countershaft is in direct line with the rolls instead of at right angles, and the machine throughout is built especially heavy. The hand wheel for shifting the rolls can be swung to any angle most convenient for the operator. The retoothing mechanism is simple and very powerful, for retoothing heavy gauge saws, and is equipped with the new automatic tooth stop and spacer.

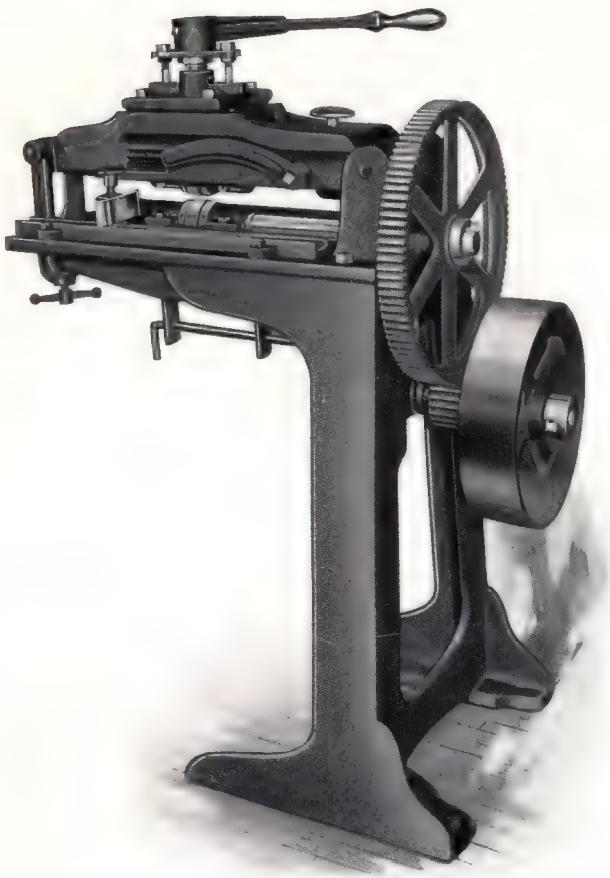
These stretchers have the hip lever arrangement, giving perfect control of the retoothing mechanism. The hip lever can be swung to any angle most convenient, and enables the operator to stand squarely on both feet and handle the saw without hindrance. These stretchers are also provided with an adjustment by which the machine can be set so as to come to a full stop after punching each tooth, with the dies open, allowing the saw to be placed for the next tooth and the machine started by pressing on the hip lever when the operator is ready to punch the next tooth.

Size	For Saws	Approx. Shipping Weight	Pulleys on Countershaft	Speed	Price	Code Word
No. 818 (With Retoother)	Up to 18″	1550 lbs.	15 x 5	100	$350.00	Bar
No. 818 (Without ")	Up to 18″	1350 lbs.	12 x 4	100	300.00	Barbacan
No. 816 (With ")	Up to 16″	1500 lbs.	15 x 5	100	325.00	Barbaric
No. 816 (Without ")	Up to 16″	1325 lbs.	12 x 4	100	265.00	Barbarize
No. 814 (With ")	Up to 14″	1440 lbs.	15 x 5	100	280.00	Barbecue
No. 814 (Without ")	Up to 14″	1275 lbs.	12 x 4	100	225.00	Barberry

These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

Nos. 818 and 816		No. 814	
With Retoother	Without Retoother	With Retoother	Without Retoother
2000 lbs., 55 cubic feet.	1700 lbs., 53 cubic feet.	1850 lbs., 50 cubic feet.	1700 lbs. 48 cubic feet.



No. 310
Hanchett Band Saw Stretcher

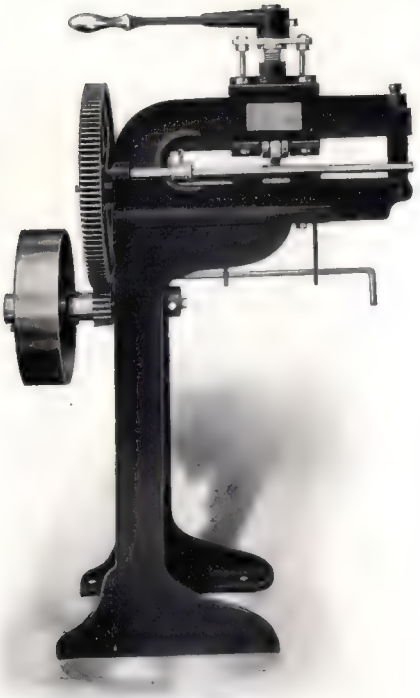
Size	For Saws	Approx. Shipping Weight	Pulleys on Counter-shaft	Speed	Price	Code Word
No. 310 (With Legs)	Up to 10″	500 lbs.	12 x 3	175	$125.00	Barbet
No. 310 (Without Legs)	Up to 10″	400 lbs.	12 x 3	175	115.00	Barge
No. 308 (With Legs)	Up to 8″	400 lbs.	12 x 3	175	110.00	Barley
No. 308 (Without Legs)	Up to 8″	325 lbs.	12 x 3	175	100.00	Baron

These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

No. 310—With Legs, 600 lbs., 16 cubic feet. Without Legs, 470 lbs., 10 cubic feet.
No. 308—With Legs, 500 lbs., 14 cubic feet. Without Legs, 400 lbs., 8 cubic feet.

This stretcher is suitable for small band or band re-saw mills or gang saws of any gauge. It is furnished either with or without legs, and is made in two sizes, one for saws up to 10 inches wide, and one for saws up to 8 inches wide. The rolls are geared together, and can be started and stopped instantly by the clutch lever. The head is hinged so that it can readily be raised. This is a very strong and powerful machine for a stretcher of this size.



No. 408
Hanchett Band Saw Stretcher

Size	For Saws	Approx. Shipping Weight	Pulleys on Counter-shaft	Speed	Price	Code Word
No. 408 (With Legs)	Up to 8″	350 lbs.	12 x 3	175	$105.00	Baton
No. 408 (Without Legs)	Up to 8″	275 lbs.	12 x 3	175	95.00	Battle
No. 406 (With Legs)	Up to 6″	300 lbs.	12 x 3	175	95.00	Beach
No. 406 (Without Legs)	Up to 6″	225 lbs.	12 x 3	175	85.00	Beard

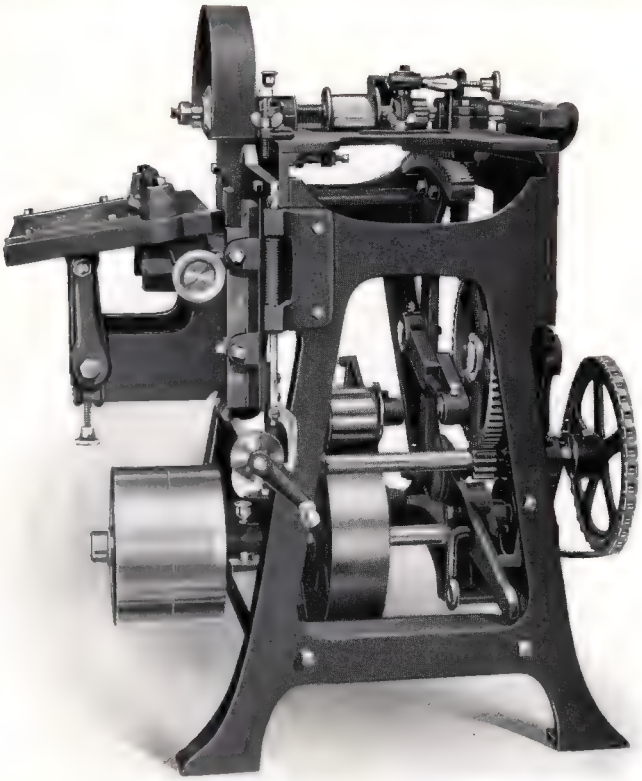
These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

No. 408—With Legs, 500 lbs., 16 cubic feet. Without Legs, 375 lbs., 9 cubic feet.
No. 406—With Legs, 450 lbs., 14 cubic feet. Without Legs, 325 lbs., 8 cubic feet.

Suitable for band re-saws 2 to 8 inches wide, and gang saws of any gauge.

The rolls are geared together and can be started and stopped instantly by clutch lever the same as on the No. 310 and No. 308 Stretchers. The head is cast in one solid piece, making a strong and efficient stretcher at a very low price. It is made in two sizes, for saws 6 inches and 8 inches wide. Furnished either with or without legs.



Hanchett Combined Automatic or Hand Lap Grinder

Size		For Saws	Approx. Shipping Weight	Pulleys on Counter-shaft	Speed	Price	Code Word
No. 518	(Combination)	Up to 18″	1050 lbs.	12 x 3	200	**$225.00**	Cabin
No. 518	(Hand only)	Up to 18″	850 lbs.	12 x 3	200	**200.00**	Calamity
No. 516	(Combination)	Up to 16″	1000 lbs.	12 x 3	200	**190.00**	Cable
No. 516	(Hand only)	Up to 16″	800 lbs.	12 x 3	200	**120.00**	Calcine
No. 514	(Combination)	Up to 14″	750 lbs.	10 x 3	200	**150.00**	Caboose
No. 514	(Hand only)	Up to 14″	575 lbs.	10 x 3	200	**110.00**	Calf
No. 512	(Combination)	Up to 12″	725 lbs.	10 x 3	200	**140.00**	Cadaver
No. 512	(Hand only)	Up to 12″	565 lbs.	10 x 3	200	**100.00**	Caliph
No. 510	(Combination)	Up to 10″	460 lbs.	8 x 2½	200	**100.00**	Cadet
No. 510	(Hand only)	Up to 10″	360 lbs.	8 x 2½	200	**75.00**	Call
No. 508	(Combination)	Up to 8″	450 lbs.	8 x 2½	200	**95.00**	Cage
No. 508	(Hand only)	Up to 8″	350 lbs.	8 x 2½	200	**70.00**	Calm

Emery-wheel for Nos. 518 to 512, 12 inches Diameter, 15/16-inch Hole.
Emery wheel and Belt furnished for **$4.50** extra.
Emery-wheel for Nos. 510 and 508, 8 inches Diameter, 15/16-inch Hole.
Emery-wheel and Belt furnished for **$3.50** extra.
Attachment for grinding Hog Knives, **$10.00** extra.

These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

	Nos. 518 and 516	Nos. 514 and 512	Nos. 510 and 508
Automatic,	1250 lbs., 38 cubic ft.	1000 lbs., 36 cubic ft.	700 lbs., 21 cubic ft.
Hand only,	1050 lbs., 38 cubic ft.	800 lbs., 36 cubic ft.	600 lbs., 21 cubic ft.

Automatic Lap Grinders

This latest Hanchett Automatic Lap Grinder is the first full automatic lap grinder manufactured. On all other grinders the saw has to be fed up to the emery-wheel by hand. On this machine an attachment is provided for feeding up the saw entirely automatically, and adjustable to feed at any speed desired. It is very simple, will not get out of order, and is easily thrown in or out of connection so as to start or discontinue feeding, without stopping the machine.

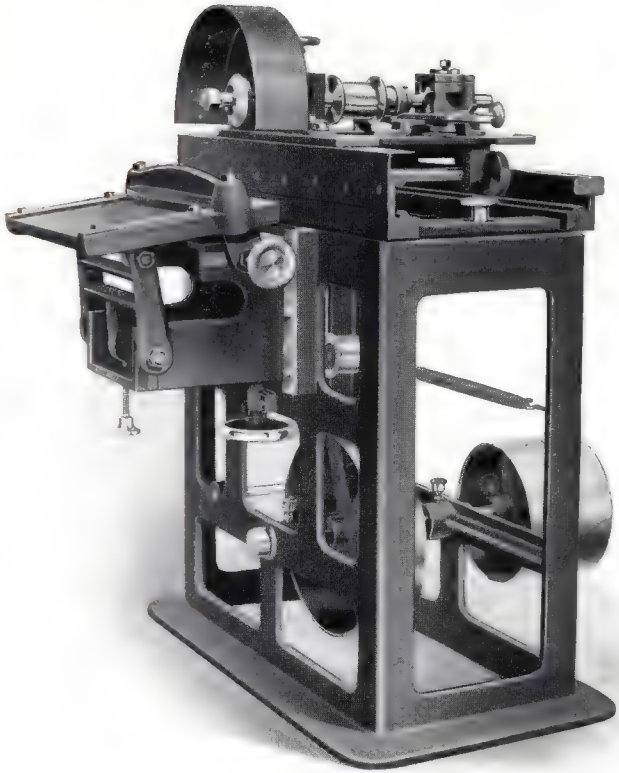
Another feature added to the Hanchett Lap Grinders is our improved saw table adjustment for moving the table out to square the ends of the saw before grinding the lap, or to inspect the lap in course of grinding. This adjustment positively will not wear loose. The table is always firmly held in position and perfectly rigid, and yet is easily released to move away from the emery-wheel by less than one-eighth turn of the hand wheel, and clamped at any point for inspecting or squaring the lap, and as easily returned. The pitch and height of the table are easily adjusted to grind a lap of any desired bevel or width.

Our new oscillating device for imparting to the emery-wheel arbor the endwise movement which keeps the wheel dressed square, is very simple, and an important feature of it is that each time the emery-wheel crosses the saw it follows a different path in the endwise movement, and thus with this ever-changing path across the saw, all parts of the lap receive the same amount of grinding, and an absolutely perfect lap is secured entirely automatically. The oscillating mechanism is easily thrown in or out of connection by an adjustment at the top of the machine, so that the oscillating movement can be started or stopped at any time without stopping the machine.

These machines are quickly changed from automatic to hand by simply removing a pin which allows the connecting arm to drop down and disengage from the carriage or slide carrying the emery-wheel arbor. The stroke is adjustable and can be set for any length desired, so as to carry the emery-wheel the proper distance for either wide or narrow saws.

In our latest machines we have brought the construction of automatic lap grinders to a point much in advance of anything heretofore known for this work. Heretofore all automatic lap grinders, while automatic as to the greater part of the work, required the attendance of the filer to keep the saw adjusted up to the emery-wheel during the grinding. With Hanchett machines this is no longer necessary. The machine can be set to feed up the saw fast or slow and can be set to going and left until the work is completed; and the feed up, being controlled by the automatic mechanism, is perfectly uniform, so that the grinding is always at the same pressure.

There are patents pending covering the new features on these machines.



Hanchett Hand Lap Grinder

Size	For Saws	Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Price	Code Word
No. 618	Up to 18″	900 lbs.	12 x 3	200	**$150.00**	Cazic
No. 616	Up to 16″	850 lbs.	12 x 3	200	**140.00**	Cedar
No. 614	Up to 14″	750 lbs.	10 x 3	200	**125.00**	Cedrine
No. 610	Up to 10″	600 lbs.	8 x 2½	200	**110.00**	Censer
No. 608	Up to 8″	575 lbs.	8 x 2½	200	**100.00**	Centare

Emery-wheel for Nos. 618 to 614, 12 inches Diameter, 15/16-inch Hole.
Emery wheel and Belt furnished for **$4.50** extra.

Emery-wheel for Nos. 610 and 608, 8 inches Diameter, 15/16-inch Hole.
Emery-wheel and Belt furnished for **$3.50** extra.

These machines equipped with Electric Motors. Prices on application.

For Export, Boxed for Ocean Shipment

Nos. 618 and 616, 1100 lbs., 42 cubic feet. No. 614, 1000 lbs., 40 cubic feet.
Nos. 610 and 608, 800 lbs., 25 cubic feet.

New Hand Lap Grinders

The new Hanchett Hand Lap Grinder is the first lap grinder designed purely as a hand machine. Heretofore the various lap grinders on the market have been designed primarily for automatic machines and then were furnished for operation by hand by simply leaving off the automatic attachments. We find that there is so much difference between the operation of a hand lap grinder and an automatic lap grinder that there are a number of improvements adaptable to a hand lap grinder which are not applicable to an automatic machine, and have therefore perfected a grinder for operating as a hand machine only. As is well known, the laps can be ground more rapidly on a hand lap grinder than on an automatic, though the automatic is selected in the majority of cases on account of the advantage of being able to leave the machine in operation while the filer is attending to other duties. Where, however, a machine is desired which will grind the laps in the shortest space of time, the hand grinder is taken. And in our new hand lap grinder we have secured improvements which greatly shorten the time required to do the work, besides being more convenient and much easier to operate.

We provide an adjustment for raising and lowering the emery-wheel, which is placed at the top of the machine and is controlled by a hand wheel which is under the hand of the operator while he is operating the carriage moving the emery-wheel back and forth across the saw. So that without changing his position or even moving his hand from one adjustment to another, the operator can change the adjustment so as to keep the emery-wheel in contact with the saw as the lap is ground down. In this way there is no time wasted in stopping to change adjustments, and the emery-wheel is kept in constant contact with the saw at any pressure desired. By the same adjustment the emery-wheel is quickly lowered to square the ends of the saw before grinding the lap.

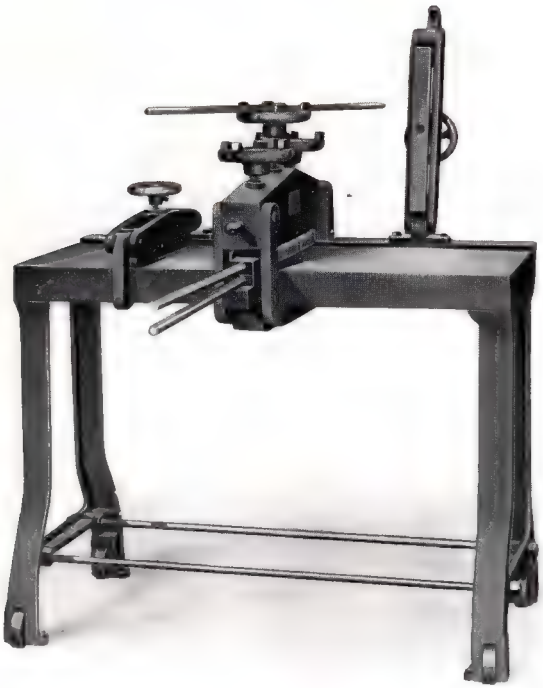
This lap grinder is equipped with our improved saw table adjustment for moving the table out to square the ends of the saw before grinding the lap, or to inspect the lap in course of grinding. This adjustment is positive and will not wear loose. The table is always firmly held in position and perfectly rigid, and yet is easily released to move away from the emery-wheel by less than one-eighth turn of the hand wheel, and clamped at any point for inspecting or squaring the lap, and as easily returned. The pitch and height of the table are easily adjusted to grind a lap of any desired bevel or width.

The emery-wheel carriage runs on rollers so that the emery-wheel is moved back and forth across the saw with very little effort, and is much easier to operate than the ordinary hand lap grinders.

We also provide a hand wheel adjustment for tilting the track or ways on which the emery-wheel carriage runs, to insure that the emery-wheel shall always operate exactly parallel to the saw. This is a new adjustment which most filers who have had experience in grinding laps will appreciate. It insures equal grinding of the lap from end to end.

The improvements embodied in this construction put these machines in a class by themselves, and make the grinding of a lap by hand a very different operation from what it has always been heretofore. When a filer has familiarized himself with this machine we believe that within the time usually required to attach the saw to the older style automatic lap grinders and get the adjustments set ready to start the machine to grinding, he could have the lap practically completed on the new Hanchett Hand Lap Grinder.

There are patents pending covering the new features on these machines.



Hanchett Brazing Table

Size		For Saws	Approximate Shipping Wt.	Price	Code Word
No. 720	(With Legs)	Up to 20″	1100 lbs.	**$125.00**	Dab
No. 718	(With Legs)	Up to 18″	850 lbs.	**115.00**	Dabble
No. 716	(With Legs)	Up to 16″	800 lbs.	**100.00**	Dactyl
No. 714	(With Legs)	Up to 14″	600 lbs.	**75.00**	Daft
No. 714	(Without Legs)	Up to 14″	500 lbs.	**65.00**	Dag
No. 712	(With Legs)	Up to 12″	550 lbs.	**65.00**	Daily
No. 712	(Without Legs)	Up to 12″	450 lbs.	**55.00**	Dairy

For Export, Boxed for Ocean Shipment

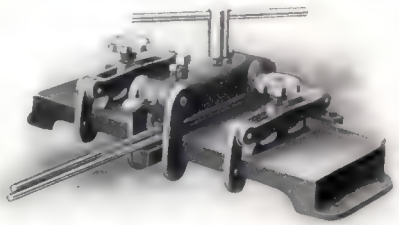
No. 720, 1500 lbs., 24 cubic feet. No. 718, 1300 lbs., 22 cubic feet.
No. 716, 1000 lbs., 20 cubic feet.

No. 714—With Legs, 800 lbs., 17 cubic ft. Without Legs, 650 lbs., 13 cubic ft.

No. 712—With Legs, 700 lbs., 15 cubic ft. Without Legs, 600 lbs., 12 cubic ft.

This is an exceptionally strong brazing table, and provision is made for exerting almost unlimited pressure on the braze, at the same time preserving the simplicity so necessary in a brazing table, where quick action is absolutely essential. The parts are designed to provide and withstand great pressure, and we have a brazing table which is very strong and durable in all its parts, its weight and strength being placed where they will do the most good. Note the exceptionally strong head or center clamp and the arrangement of the three screws for exerting the pressure. By means of the lever placed on top of the pressure

screw heads, any desired amount of pressure may be had, more or less leverage being secured by changing the position of the lever, and thus great pressure is secured very easily. The clamping bar is made in three sections, so that the pressure may be made greatest at any point. The top is accurately planed, the clamp screws are made of the best steel, and the clamp hooks are made of forged steel. The opening where the brazing irons are placed is planed perfectly true and fitted with a wedge, to give a square, solid rest at any height desired. The bed is made extremely heavy, and there is absolutely no spring even when the greatest pressure is exerted. Two brazing irons are furnished with each table, and the tables are also equipped with adjustable gauges for use in brazing narrow saws. Tables are equipped either with two side clamps as shown in the cut, or with four side clamps if preferred.



Hanchett Brazing Table

Size	For Saws	Approximate Shipping Wt.	Price	Code Word
No. 710	Up to 10″	200 lbs.	$30.00	Dakota
No. 708	Up to 8″	150 lbs.	23.00	Dale
No. 706	Up to 6″	120 lbs.	19.00	Dame

For Export, Boxed for Ocean Shipment

No. 710, 225 lbs., 5 cubic feet. No. 708, 175 lbs., 4 cubic feet.

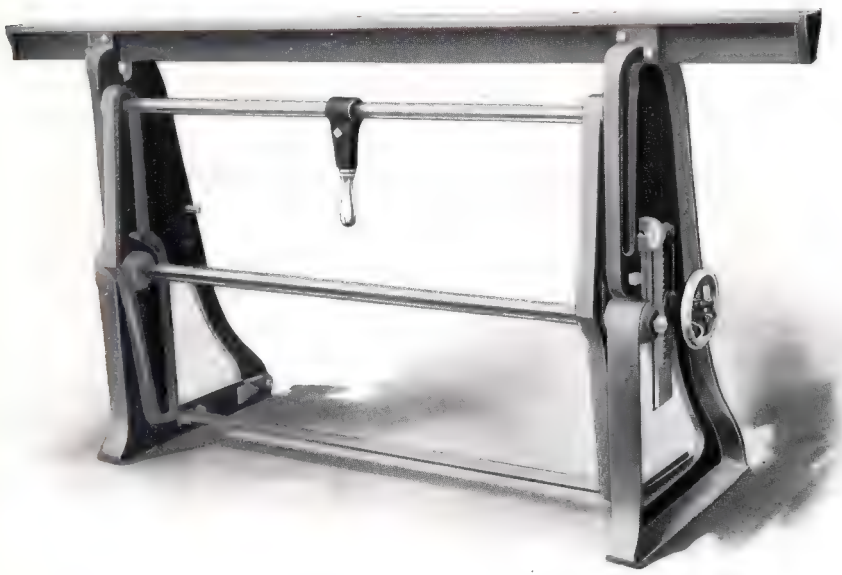
No. 706, 135 lbs., 3 cubic feet.

Suitable for any saws up to 6, 8 and 10 inches wide. Pressure bar made in two sections for exerting greatest pressure at any point. The opening for the brazing irons is planed perfectly true and fitted with wedge same as on our larger brazing tables. A very strong and efficient brazing table for narrow saws.

Brazing Tongs

For 2-inch saws.....$2.50....Code Word, "Dally"

For 3, 4, 5, or 6-inch saws.....$1.25 per inch



Hanchett Open Down Filing Clamp

Six Feet Long.

Size	For Saws	Approximate Shipping Wt.	Price	Code Word
No. 1	Up to 20″	485 lbs.	$95.00	Damage
No. 2	Up to 14″	425 lbs.	75.00	Damask

For Export, Boxed for Ocean Shipment

No. 1, 900 lbs., 32 cubic feet. No. 2, 650 lbs., 30 cubic feet.

One jaw opens down parallel to the floor to facilitate putting the saw in place or removing it from the clamp. Upon closing the jaws they clamp automatically but loosely enough to allow the saw to pass through the clamp readily. This is adjustable and may be made as loose as desired. Saw may also be clamped very tightly by eccentric pressure exerted by the hand lever shown in the cut. Jaw released to drop down by pressing the foot lever.

No. 12

Hanchett Band Saw Filing Clamp

The standard clamp for single cut band saws up to 12 inches wide. An all-iron clamp. Jaws open automatically when unclamped.

Price, **$50.00**; approximate shipping weight, 280 lbs.; Code Word, "Damsel."

For Export, Boxed for Ocean Shipment, 400 lbs., 23 cubic feet.

No. 3

Hanchett Filing Clamp

A standard filing clamp suitable for gang saws, band re-saws, or small band saws from 2 to 8 inches wide. When jaws are unclamped, they open automatically. We make them with or without legs. Clamp without legs is fitted for fastening to bench. When ordering for gang saws, give distance between tabs of saws.

Price, with legs, **$28.00;** approximate shipping weight, 175 pounds; Code Word, "Dander."

Price, without legs, **$23.00;** approximate shipping weight, 100 pounds; Code Word, "Dandruff."

For Export, Boxed for Ocean Shipment

With Legs, 250 lbs., 22 cubic feet. Without Legs, 120 lbs., 3 cubic feet.

Hanchett Gang Saw Filing Clamp

The only perfect clamp for gang saws. By means of the weights, the clamp is instantly adjusted for saws of varying widths. Simply press the saw down to the desired position and clamp the jaws. The saw rests, being balanced by the weights, are always in proper position for either wide or narrow saws.

Price, **$50.00**; approximate shipping weight, 275 lbs.; Code Word, "Dandy."

In ordering, always give distance between tabs of saws.

For Export, Boxed for Ocean Shipment, 350 lbs., 22 cubic feet.

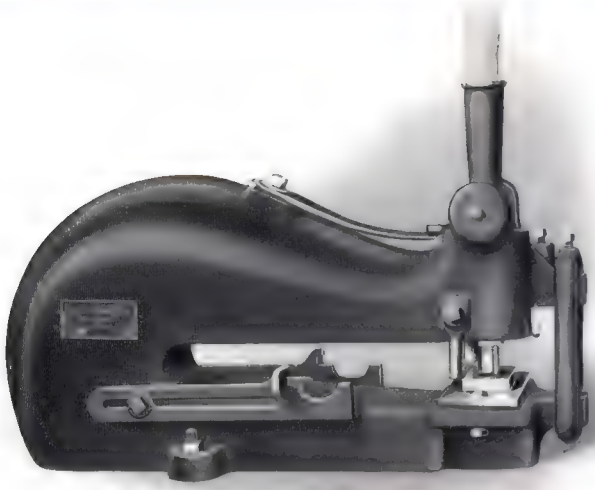
Hanchett Shears for Band or Gang Saws

Each machine is furnished with an adjustable gauge for trimming lengthwise or cutting across the saws. It will cut across a saw at a single stroke. A very powerful shear, with knife adjustment such that the shear blades are easily adjusted to make a perfect cutting shear. Furnished with truck when so ordered, of which the front wheels may be guided in either direction to facilitate guiding the truck to any position in the filing room.

Size		For Saws	Approximate Shipping Wt.	Price	Code Word
No. 20	(With Truck)	Up to 20″	875 lbs.	$100.00	Date
No. 20	(Without Truck)	Up to 20″	775 lbs.	85.00	Daub
No. 16	(With Truck)	Up to 16″	700 lbs.	90.00	Dauber
No. 16	(Without Truck)	Up to 16″	600 lbs.	75.00	Daunt
No. 14	(With Truck)	Up to 14″	600 lbs.	80.00	Davit
No. 14	(Without Truck)	Up to 14″	500 lbs.	65.00	Dawdle

For Export, Boxed for Ocean Shipment

No. 20—With Truck, 1050 lbs., 22 cubic ft. Without Truck, 950 lbs., 14 cubic ft.
No. 16—With Truck, 900 lbs., 21 cubic ft. Without Truck, 775 lbs., 12 cubic ft.
No. 14—With Truck, 800 lbs., 20 cubic ft. Without Truck, 650 lbs., 10 cubic ft.



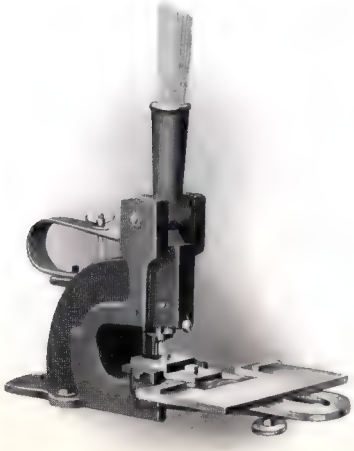
Hanchett Combined Punch and Shears

Our Combination Punch and Shears for re-toothing band and gang saws, and for trimming lengthwise or cutting across the saw. Machine is furnished with a set of re-toothing dies (latest improved box die) for any shape of tooth desired; also set of shear dies, and adjustable pawl to gauge space of teeth. Adjustable gauges are furnished also for use in shearing. When desired, we will also furnish a truck similar to our shear truck shown on next page. When ordered with truck, add **$15.00** to the prices quoted below.

Size	For Saws	Approximate Shipping Wt.	Price	Code Word
No. 0	Up to 20″	700 lbs.	$110.00	Dapple
No. 6	Up to 16″	500 lbs.	90.00	Dare
No. 4	Up to 14″	450 lbs.	85.00	Darius
No. 2	Up to 12″	375 lbs.	75.00	Darkle

For Export, Boxed for Ocean Shipment

No. 0	No. 6	No. 4	No. 2
800 lbs., 12 cubic ft.	600 lbs., 10 cubic ft.	500 lbs., 8 cubic ft.	400 lbs., 6 cubic ft.



No. 3

Hanchett Band Re-Saw Punch and Shears

For re-toothing and trimming gang or band re-saws 1½ to 8 inches wide. Each machine furnished with set of retoothing dies (any shape desired) and set of shear dies. Send template of tooth wanted.

Price, **$55.00**; approximate shipping weight, 115 pounds; Code Word, "Dash."

For Export, Boxed for Ocean Shipment, 175 lbs., 5 cubic feet.

Pulleys and Stands for Band Saws

Cut shows but one pulley and the adjustable stand; pulleys are adjustable horizontally or up and down, as desired. Outfit is complete with two pulleys and two stands, one stand being stationary.

Size	Approximate Shipping Wt.	Price	Code Word
5 ft.—Extra Heavy	750 lbs.	$90.00	Dean
4 ft.—Extra Heavy	650 lbs.	70.00	Debacle
5 ft.—Standard	500 lbs.	65.00	Debar
4 ft.—Standard	450 lbs.	55.00	Debeige
3 ft.—Re-saw	300 lbs.	40.00	Debenture
30 in.—Re-saw	120 lbs.	15.00	Debilitant

For Export, Boxed for Ocean Shipment

Extra Heavy	Regular
5 ft.—1000 lbs., 46 cubic feet.	5 ft.— 700 lbs., 46 cubic feet.
4 ft.— 900 lbs., 40 cubic feet.	4 ft.— 650 lbs., 40 cubic feet.
3 ft.— 400 lbs., 25 cubic feet.	30 in.— 200 lbs., 10 cubic feet.

Adjustable Stands, Brackets and Rolls

Indispensable for building the bench and handling the saws on the stretcher. A full set consists of four swinging brackets, five floor rolls and five adjustable stands.

		Approximate Shipping Wt.	Code Word
Price—Full Set of 14 Pieces	$40.00	450 lbs.	Debit
" Adjustable Stands, each	4.00	60 lbs.	Debonair
" Swinging Brackets, each	4.00	25 lbs.	Debouch
" Floor Rolls, each	1.75	10 lbs.	Debridge

Hanchett Combined Hand and Power Forge

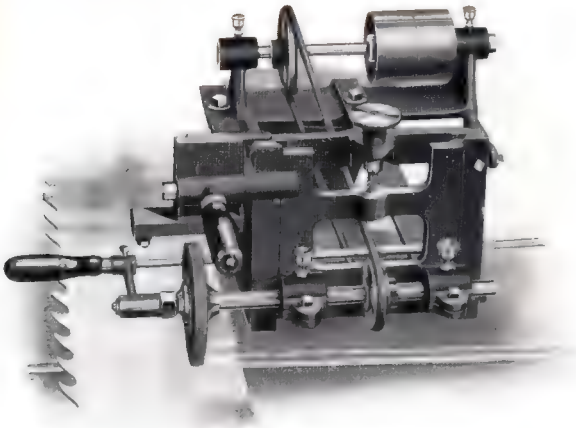
Size	For Saws	Approximate Shipping Wt.	Pulleys	Price	Code Word
No. 1	Up to 18″	400 lbs.	6 x 1½	$50.00	Decade
No. 2	Up to 14″	350 lbs.	6 x 1½	40.00	Decagon

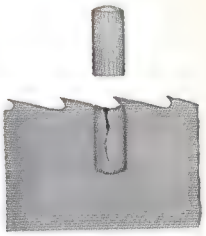
These machines equipped with Electric Motors. Prices on application.

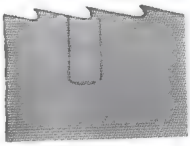
For Export, Boxed for Ocean Shipment

No. 1, 650 lbs., 26 cubic feet. No. 2, 575 lbs., 21 cubic feet.

For heating brazing irons and general use. Has special tuyere irons of extreme length, and will give uniform and equal heat the entire length of the brazing irons. Light running, with no surplus mechanism; can be changed from power to hand and vice versa instantly. The simplest forge manufactured and the most durable; nothing to get out of order, and an absolutely even blast is maintained the entire length of the fire-box, which is enclosed with cast-iron hood corked with asbestos. Will use any kind of fuel. No. 1, hearth 23 x 14 inches. No. 2, hearth 19 x 12 inches.







Hanchett Improved Saw Patching Machine

Approximate Shipping Wt.	Pulleys on Countershaft	Speed	Emery-wheel	Price	Code Word
125 lbs.	4 x 2″	3000	4 or 5″ x ½-¾″ Hole	$60.00	Decaliter

This machine equipped with Electric Motor. Price on application.

For Export, Boxed for Ocean Shipment, 125 lbs., 10 cubic feet.

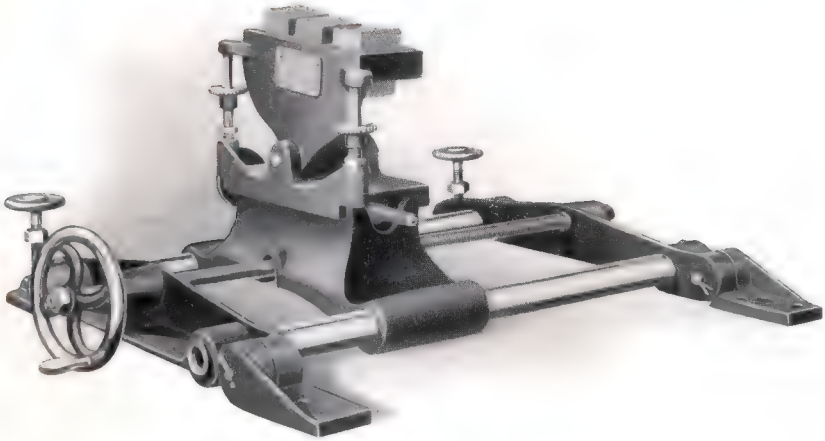
The new Hanchett patching machine has a number of improvements over the machine formerly furnished for this work, and affords the only practical remedy for saw cracks. In changing the vertical adjustment of the emery-wheel, both ends of the arbor raise and lower alike, to insure that the groove in the saw shall be of same depth its entire length, and full provision is made in the adjustments controlling the patch holder so that the patch can be ground on exactly the same circle as the groove in the saw.

Place the crack in the saw directly under the center of the emery-wheel, and operate the emery-wheel forward and backward the length of the crack, until a concave groove is ground along the line of the crack, which is the center of the groove and whose walls are ground to knife edges.

A piece of saw blade is then cut a little longer than the groove and is fastened between the buckles on the oscillating bar directly over the emery-wheel, and by swinging the bar from right to left over the wheel a perfect convex patch is ground which will exactly fit the concave groove in the saw. Any old piece of saw plate can be used for patches and they are bound to fit. Place silver solder between the patch and saw and braze in the usual manner.

The patch is placed on the inner surface of the saw next to the wheel. This enables the saw to make its regular revolutions round the wheel with no tendency to spring loose or pry out the patch.

This patching machine can also be used for circular saws.



GeBott Band Wheel Grinder

Size	For Band Wheels	Approximate Shipping Wt.	Price	Code Word
No. 1	Up to 20″ face	225 lbs.	$220.00	Decandrian
No. 2	Up to 10″ face	175 lbs.	155.00	Decemvir

For Export, Boxed for Ocean Shipment

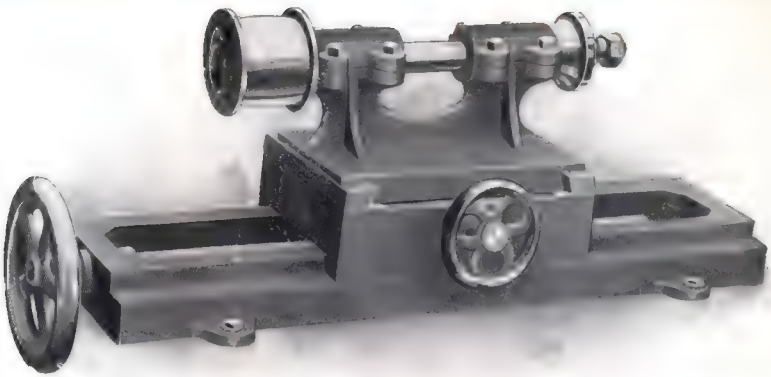
No. 1, 425 lbs., 10 cubic feet. No. 2, 350 lbs., 9 cubic feet.

In the GeBott band wheel grinder we have secured a machine that will positively grind the wheels round and leave them in perfect balance. The band wheels can be trued up with this machine at not to exceed one-quarter of the expense usually required to do the work with an ordinary band wheel grinder. No special power, belts, pulleys or line shafting of any kind is necessary. Simply set the machine on the band mill husk and start the mill at a running speed of about 2000 feet per minute or just enough to make the blocks spark. This gives the proper speed for grinding cast iron. The usually dreaded operation of truing up the band wheels is by this machine made one of the simplest duties about the mill. The wheels can be trued up at any time with very little effort and practically no expense, with the result that any mill securing this grinder will always have the band wheels in perfect condition, save saw expense and improve the quality of the lumber.

This machine is of simple construction and easy to set up and operate. A piece of 6 x 8 timber, 4 feet long, is securely bolted to the husk of the band mill, and the two feet of the machine then fastened to this timber with small lag screws or bolts. The grinder is then tilted up to any angle desired until the grinding blocks come in proper contact with the band wheel to be ground. It is supported in this position by placing two small posts, one supporting each end of the raised frame of the grinder, cross bracing them so there is no lost motion while grinding. The head can be tilted and the grinding blocks adjusted to fit any diameter wheel, and the grinder adjusted up to the band wheel by turning the two hand wheels braced against the two supporting posts above mentioned, and the grinding blocks are fed across the face of the band wheel by hand wheel as shown in the cut.

The top and lower band wheels can be ground from above; it is not necessary to place the machine in the pit in order to accomplish the work. This machine will never wear out and practically no repairs are necessary. One set of grinding blocks will last for years and new sets can be secured at a cost of only $2.00 per set.

This grinder is made in two sizes—No. 1, accommodating band mills of any size, and No. 2, accommodating band re-saw mills with wheels up to ten inches wide.



No. 3 Hanchett Band Wheel Grinder

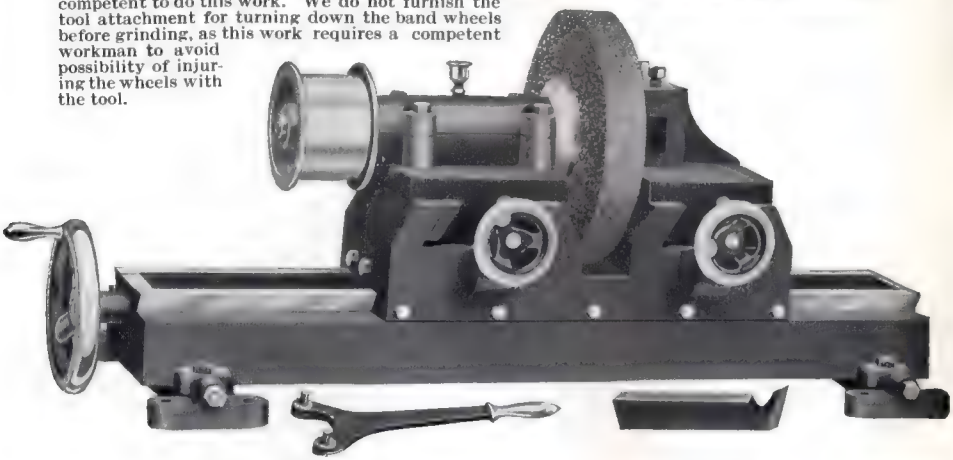
		Approximate Shipping Wt.	Pulley	Speed	Code Word
Price	$80.00	375 lbs.	4 x 3	1400	Decided

Emery-wheel, 12 inches Diameter, 1¼-inch Hole. Emery-wheel furnished for $3.75 extra.

This machine equipped with Electric Motor. Price on application.

For Export Boxed for Ocean Shipment, 475 lbs., 10 cubic feet.

The Hanchett Band Wheel Grinder is designed to meet the demand for a high-grade and thoroughly efficient machine. It is made heavy so as to be able to grind rapidly and eliminate all spring and vibration. The slides are hand scraped to bearing. No highly skilled mechanic is required to operate the machine. Any practical man, such as the filer or mill wright, is thoroughly competent to do this work. We do not furnish the tool attachment for turning down the band wheels before grinding, as this work requires a competent workman to avoid possibility of injuring the wheels with the tool.



Size	For Saws	Approx. Shipping Weight	Pulleys	Speed	Emery-wheel	Price	Code Word
No. 27-A	Up to 16 in.	550 lbs.	5 in.	1500	12x2 , 1⅛ in. Hole	$100.00	Coresultant
No. 27	Up to 12 "	500 "	5 "	1500	12x1¼, 1⅛ " Hole	90.00	Coresult
No. 27-B	Up to 8 "	325 "	5 "	1500	12x1 , 1⅛ " Hole	60.00	Result

For Export, Boxed for Ocean Shipment

No. 27—A, 550 lbs., 10 cubic feet. No. 27, 450 lbs., 8 cubic feet. No. 27-B, 325 lbs., 6 cubic feet.

This Band Wheel Grinder with Emery-Wheel and Tool Attachment, adapted to every size and type of Log Band or Band Re-saw Mill manufactured, is a high grade, thoroughly well-constructed, efficient machine, provided with both a tool attachment for turning and an emery-wheel for grinding, the latter being always essential and the former is furnished with this machine so that where much dressing is required, time can be saved by taking a preliminary cut with the tool, when there is a competent man to do the work. This machine is provided with a single lateral feed and two independent direct feeds, one for the emery-wheel and one for the tool, so that these may be used independently or together if desired, the tool taking the first cut, followed by the smoothing grind of the emery-wheel. This insures a smooth, true surface, with a saving of time.

No. 13

Kinney Improved Swage

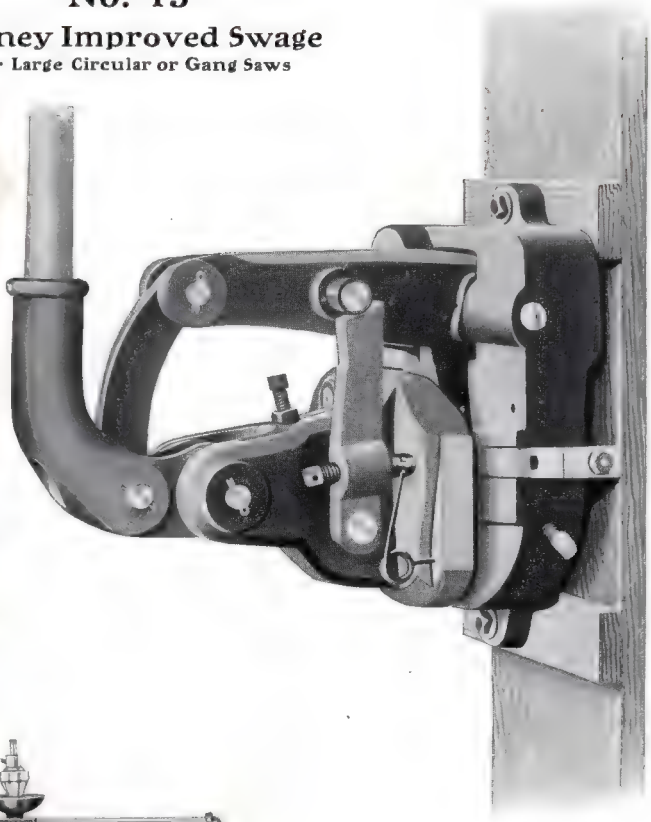
For Large Circular or Gang Saws

The dies and all working parts are made very large and of highly tempered steel. Can be easily replaced when worn. Swage when in use is fastened to post or wall to use the lever conveniently. Hanger and tackle blocks are furnished to lift the saw and hold it for swaging.

In ordering, always specify whether for gang or circular saws.

Price $75.00
Weight, 300 lbs.

Code word for Gang Saws, Salute, for Circular Saws, Sailor.



Hanchett Combined Adjustable Saw Set and Jointer

The "Handiest" article about the mill or in the filing-room.

Made in three sizes, and furnished either with or without legs.

Size		For Saws	Approximate Shipping Wt.	Price	Code Word
No. 1	(With Legs)	Up to 84″	175 lbs.	$25.00	Declaim
No. 1	(Without Legs)	Up to 84″	100 lbs.	17.50	Declare
No. 2	(With Legs)	Up to 60″	125 lbs.	22.50	Decline
No. 2	(Without Legs)	Up to 60″	75 lbs.	15.00	Decoct
No. 3	(With Legs)	Up to 46″	100 lbs.	20.00	Decorate
No. 3	(Without Legs)	Up to 46″	50 lbs.	12.50	Decrease

Hanchett Adjustable Saw Swages

It is generally admitted that the Hanchett swage was the first really satisfactory swage placed upon the market, and in its design was first perfected the only general scheme of eccentric lever swage construction which can give universally satisfactory results in the operation of such a tool. Other forms hav been tried and abandoned, and the general construction first adopted and perfecte. Hanchett swages has finally been adopted and admitted by practically a. swage makers and users to be the only construction which will meet without difficulty the varying requirements of the various styles and kinds of saws.

And the many swages that have followed since the introduction of the Hanchett have recognized this truth by following this general scheme of construction so far as permissible without infringing prior rights.

The actual experience, however, of working out the problems of swage construction in the first instance, is of the greatest value in the perfecting of tools of this character. Our experience covers many years, and the Hanchett swage has long occupied a position in a class by itself, with more Hanchett swages in service than the combined total of at least five of its nearest competitors. There are more than 14,000 Hanchett swages in use throughout the world, nearly three times as many as the nearest competing swage.

The unusual demand for Hanchett swages which followed almost immediately upon their introduction, resulted in many other swages being offered patterned largely after the Hanchett style. And we may say further that certain features have later been adopted in other swages and offered as improvements, which are a part of the history of the Hanchett swage, were carefully tried out in the extended preliminary tests, but failed of acceptance with Hanchett tools because they could not be properly worked into the general construction of a perfect tool, but caused a loss in other respects which more than balanced the advantages offered; as, for instance, they made an unwieldy addition to the swage which lowered its general efficiency, interfered with some other adjustment, or seriously weakened the head, or in some other respect would have made it necessary to sacrifice some other feature which as embodied in Hanchett swages gave greater advantages than the special features in question. So that when it came to a final choice they were rejected in favor of the superior advantages offered by the construction finally adopted in the manufacture of Hanchett swages.

Hanchett Band and Gang Saw Swage

PRICES

		Approximate Shipping Wt.	Code Word
Size No. 0 for saws 8-13 gauge	$35.00	17 lbs.	Harsh
Size No. 1 for saws 12-16 gauge	33.00	12 lbs.	Harvest
Size No. 2 for saws 16-18 gauge	28.00	5 lbs.	Hash
Size No. 3 for saws 18-26 gauge	28.00	3 lbs.	Hasp

These swages are designed especially for use on band, band re-saw and gang saws, and have established a reputation for giving complete satisfaction at all times. Every swage is shipped under our guarantee to give satisfaction under all conditions or it may be returned to us.

When the swage is used upon a gang saw, a fork is furnished that has no forward projection, thus making it more convenient for swaging the last teeth at the lower end of the saw.

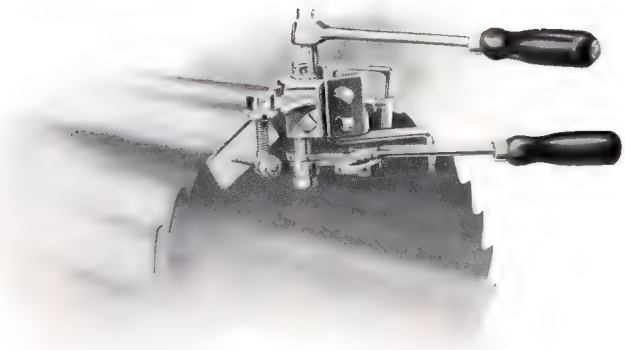
Hanchett Bad Saw Swage

We list three regular styles of eccric dies for our log ' ind saw swage No. 1, and make any special dies requed. The strongest sw .d teeth in the w are made by Hanchett swage di The die action is ıture of swage construction which requires exhaustivexperimenting to . ε construction h ill make the strongest corners ı all saw teeth. The shape and action dies to give the best results is sıething which cannot be worked out by thod of calculation. Actual ults in repeated experiments under all ns is the only certain method solving these questions. The extended an eccentric die swage developshe fact that there is considerable varia- ın the steel and temper of the varis saws, and this with the varying shapes eth makes the problem of the bestill-round swage die and die action a very delicate one. And recognizing this fa, it is the exhaustive experimenting and large amount of study which we havdevoted to this one feature during a long period of time that has resulted in oupresent standard of Hanchett swage dies, which we confidently claim to produche strongest ed teeth with strongest corners of any swage yet produced; d to swage saws with less strain on the swage dies and on the saw teeth. Many times saws are blamed for crumbling teeth where with a proper die actionhis trouble would be avoided.

It is a comparatively simple maer to design a die action which will give excessive wearing surface at the expse of wearing quality. But the quality of the tooth to be produced by the swge is of muc ı greater importance than all other considerations combined, and ny sacrifice on this point to secure some other advantage, is an abandonmei nportance. In the design of the Hanchett swage we have allowed nothing tinterfere with the construction which will insure the strongest teeth. It is vth reference to the action of the dies upon the teeth that the whole swage is dgned, and nothing has been allowed to interfere with the securing of the best esults here. At the same time we are able to provide several wearing surfaos for the dies without interfering with the quality of the work, and also we elieve it is generally admitted that the Hanchett dies will stand the longest wr in one place before it is necessary to change to a new wearing surface; so th there is no swage with which there is less time spent in changing the dies ı new wearing surfaces or new dies, and no swage where the cost for dies, ear in and year out, is as low as with the Hanchett.

The action of the dies on th Hanchett swage draws out the teeth without undue strain on the steel. Thi refines the steel, causing the saw to carry a better cutting edge and increasin its life.

We solicit correspondence rom any concerns having difficulty with their saws through the teeth crumblig, losing the corners, etc.



Hanchett Cylinder Saw Swage

		Approximate Shipping Wt.	Code Word
Price	$33.00	12 lbs.	Haste

Hanchett Cylinder Saw Swage

This is the regular Hanchett Band Saw Swage adapted to cylinder saws, and is covered by the description of our swages on the preceding pages. We have sold a large number of these and they have proved just as efficient for cylinder saws as our regular band and circular saw swages are for other saws. These swages are also equipped with our new spring bracket.

Hanchett Cylinder Saw Shapers

Practically the same construction as our band swage shapers illustrated on pages 74 and 78, with the necessary changes to adapt to cylinder saws.

Price, $20.00.

Hanchett Adjustable Circular Saw Swages

Hanchett Circular Saw Swage

(Style A)

PRICES

		Approximate Shipping Wt.	Code Word
Size No. 1 for saws 5-10 gauge	$35.00	25 lbs.	Had
Size No. 0 for saws 8-12 gauge	35.00	18 lbs.	Hack
Size No. 2 for saws 11-16 gauge	33.00	13 lbs.	Haft

The phenomenal success of the Hanchett swages has demonstrated beyond question the perfect adaptability of this construction to the varied requirements of the filing room. The Hanchett circular saw swage is easily the most desirable on the market, having greater strength, wider range of adjustment, and greater durability, than any other construction, and has now held a commanding lead for so many years that its leadership is practically unchallenged. The construction is the same as the Hanchett band saw swages, with the necessary changes in the attachments to adapt the swage to circular saws, with the same reinforced head construction providing the great strength necessary to handle the heaviest circular saws. Like the band saw swages, these tools have the perfect hang and balance which insure easy and rapid operation, with no unnecessary projections to bother the operator, and the levers placed close to the body of the swage, to secure the most direct action and greatest strength and convenience.

Hanchett Circular Swage for Swaging Saw on Arbor (Style B)

PRICES

		Approximate Shipping Wt.	Code Word
Size No. 1 for saws 5-10 gauge	$35.00	24 lbs.	Hag
Size No. 0 for saws 8-12 gauge	35.00	17 lbs.	Hain
Size No. 2 for saws 11-16 gauge	33.00	12 lbs.	Hair

This style is especially well adapted for shingle saws and can be operated very rapidly; now very extensively used for shingle saw work. We have also furnished a large number of styles C and for shingle saws, in such cases furnishing a special bench attachment for holding the saws without removing the collars.

Here are samples of some of the strong letters we are constantly receiving in regular course of business without any solicitation on our part, regarding our circular saw swages:

HANCHETT SWAGE WORKS,
Big Rapids, Mich.

Gentlemen:

I will send you my order today for fear I will have no better chance to try your swages. I have used several other kinds of swages, but they never gave complete satisfaction. I have been in the filing business long enough to know. It takes good tools to do good work, a man works according to his tools. I have heard so much about the Hanchett I believe it will give satisfaction.

Please send me one Hanchett circular saw swage No. 1, style C, with bench attachment long enough so that I can use my swage on a 66" saw: also send me one Hanchett circular swage shaper size No. 1, and one up-set swage No. 1. Ship to Emmett, Idaho, by express, and oblige.

Yours very truly,
J. G. MOORE,
Sweet, Idaho.

HANCHETT SWAGE WORKS,
Big Rapids, Mich.

Gentlemen:

I must drop you a few lines complimenting your swage and swage shaper for circular saws and also your hammering outfit which I received some time back. I am bound to admit that my satisfactory results with swages were small till I commenced using the Hanchett. I must say they are the best I ever used; they are simple and durable and are finished up-to-date tools. I find now that I do not need the up-set at all; will return it soon, the first time in life I can lay an up-set aside. I remain as ever,

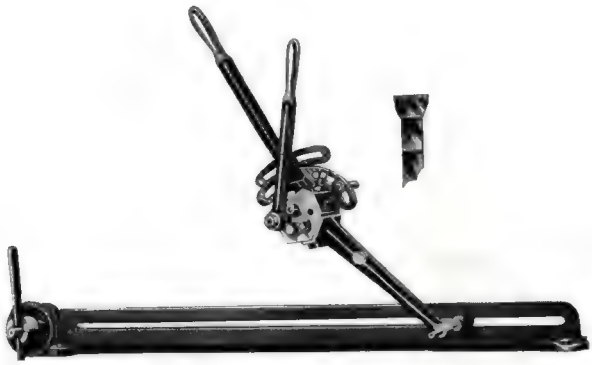
Yours very truly,
J. G. MOORE,
Sweet, Idaho.

HANCHETT SWAGE WORKS,
Big Rapids, Mich.

Gentlemen:

The No. 1 Shaper works fine. It's just like the swage, head and shoulders above all the rest. I could not file now without the shaper after knowing what fine work it does on the saws. I have.....saws of very high temper here, and never have a corner break off since using the Hanchett swage and shaper.

Sincerely yours,
GEORGE HILTS,
Walloon Lake, Mich.



Hanchett Circular Swage with Bench Attachment (Style C)

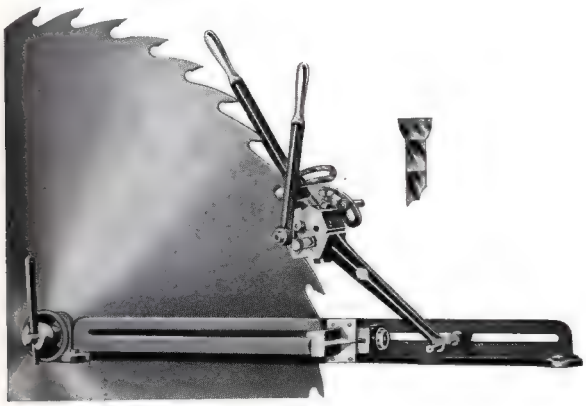
PRICES

		Approximate Shipping Wt.	Code Word
Size No. 1 for saws 5-10 gauge	$38.00	53 lbs.	Hale
Size No. 0 for saws 8-12 gauge	38.00	46 lbs.	Half
Size No. 2 for saws 11-16 gauge	35.00	36 lbs.	Hall
Size No. 3 for saws 16-18 gauge	30.00	16 lbs.	Halt
Size No. 4 for saws 19-22 gauge	30.00	7 lbs.	Halve

Bench Attachment, Jointer and Side File

The increasing demand for attachments which would assist the filer in swaging his saws, has led us to place upon the market the following attachments for our swages:

A long bench attachment or casting of malleable iron, upon which all kinds of circular saws can be fitted and upon which the swage and shaper, jointer and side file can be operated. The saw is held on the arbor by a cone which is accurately turned and holds the saw perfectly central. Cones are furnished that will accommodate arbor holes of any size for which they are desired. The swage or shaper is held in position relative to the saw by a pin which slides along the slot in the casting.

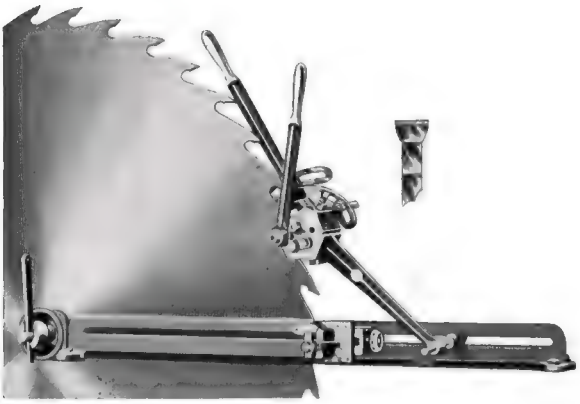


Hanchett Circular Swage with Bench Attachment and Jointer

(Style D)

PRICES

		Approximate Shipping Wt.	Code Word
Size No. 1 for saws 5-10 gauge	$42.00	57 lbs.	Ham
Size No. 0 for saws 8-12 gauge	42.00	50 lbs.	Hand
Size No. 2 for saws 11-16 gauge	38.00	40 lbs.	Hang
Size No. 3 for saws 16-18 gauge	35.00	20 lbs.	Hank
Size No. 4 for saws 19-22 gauge	35.00	11 lbs.	Happy



Hanchett Swage with Bench Attachment and Combined Jointer and Side File

(Style E)

PRICES

		Approximate Shipping Wt.	Code Word
Size No. 1 for saws 5-10 gauge	$46.00	61 lbs.	Hard
Size No. 0 for saws 8-12 gauge	46.00	54 lbs.	Hardy
Size No. 2 for saws 11-16 gauge	42.00	44 lbs.	Hark
Size No. 3 for saws 16-18 gauge	39.00	24 lbs.	Harm
Size No. 4 for saws 19-22 gauge	39.00	15 lbs.	Harp

The jointer for jointing or rounding the saws is operated in connection with the bench attachment and consists of a piece of ordinary mill file held firmly in place by set-screws, and adjusted by a hand wheel. This machine is simple, and it is practically impossible to get out of order. It is just what every filer wants to use every day.

We also manufacture a combined jointer and side file that has done very meritorious work. The jointing and side filing are done by three pieces of ordinary mill file, held firmly in place by set-screws and adjusted by hand wheels. The files work one on either side of the tooth and one at the point.

Hanchett Band Swage Shaper

	PRICES	Approximate Shipping Wt.	Code Word
Size No. 1 for saws 10-13 gauge	$25.00	9 lbs.	Haunt
Size No. 2 for saws 12-18 gauge	20.00	7 lbs.	Have
Size No. 3 for saws 16-22 gauge	20.00	5 lbs.	Haw

Hanchett Gang Swage Shaper

	PRICES	Approximate Shipping Wt.	Code Word
Size No. 1 for saws 10-13 gauge	$25.00	9 lbs.	Hawse
Size No. 2 for saws 12-18 gauge	20.00	7 lbs.	Hazard
Size No. 3 for saws 16-22 gauge	20.00	5 lbs.	Hazel

Hanchett Band and Gang Swage Shapers

While the Hanchett shapers were not introduced until a much later date than the swages, they are already in very general demand. In perfecting these tools the same exhaustive experimenting and care was exercised as in the perfecting of the swages, and the same high grade material and workmanship are used. Having learned in the manufacture of Hanchett swages the importance of the slightest variation in the action of dies for fitting saw teeth, the greatest care has been taken in the perfecting of our shaper dies and in the design of the tool which controls their operation. In the past year we have been able to further improve the shaper dies. They not only give a perfect clearance to the tooth but do not cause undue strain on the steel, and so reinforce the point of the tooth as to give the greatest strength. They bevel the tooth at the proper angle so as not only to make the strongest corners but to best conform the tooth for repeated swagings without crumbling as it wears down. The Hanchett swage and shaper dies work together perfectly to produce the strongest swaged tooth that can be made. The principle for operating the shaper dies as perfected and patented in the Hanchett shaper is the only correct principle for this operation. The dies are mounted in a circular head completely encircling the dies and forming perfectly true ways in which the dies operate, and the motion of the dies is controlled by a right and left hand screw running through them, insuring that the motion of one die shall be identical with the other. This construction not only insures absolute accuracy of action but is very strong and there is no danger of breaking the head. It was formerly thought that equally satisfactory results were secured by leaving one die stationary, but actual results from the Hanchett shapers have proven otherwise, and it is now getting to be very widely conceded that this construction gives results noticeably superior to the old way, and the present tendency among the best of the older shapers is to abandon the old construction in favor of that which Hanchett shapers have proven superior.

Every tooth is pressed into perfect shape, as in a mold, widest on face and widest at the extreme point, tapering downward from the point and backward from the face, by hardened tool steel dies accurately ground and beveled in two ways so as to taper the saw tooth downward from the point and backward from the face. The dies have several wearing places and are easily removed for grinding. They do not require a gauge for this purpose, as their shape makes dressing easy. The adjustments of the shaper are perfectly arranged to change to a new wearing surface on the dies without changing the gauge, and to adjust to give a wider or narrower gauge.

The tooth stop is made double end and also acts as a front rest, and together with the back rest and guide give perfect control of the shaper on the saw, compelling each tooth to take exactly the same position on the dies, insuring absolutely uniform results without the slightest variation. The shaper rides the saw perfectly and is easily operated at great speed.

The slotted circle with which the dies are connected to the lever is very useful, enabling the operator to adjust the lever to any position that is most convenient without changing the action of the dies, or he can change the spread of the dies to the smallest degree without disturbing the position of the lever.

The use of the Hanchett shaper insures stronger and more durable teeth, smoother lumber and easier running saws. Every Hanchett shaper is shipped under our guarantee to give entire satisfaction or it may be returned.

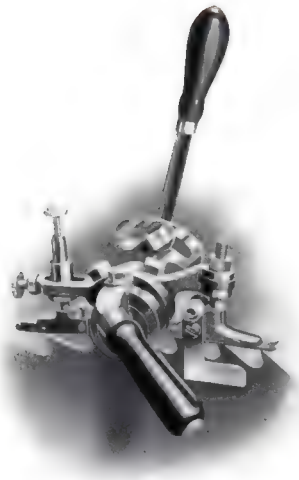
Hanchett Circular Swage Shaper

PRICES

		Approximate Shipping Wt.	Code Word
Size No. 1 for saws 5-13 gauge	$25.00	12 lbs.	Hasten
Size No. 2 for saws 12-18 gauge	20.00	8 lbs.	Hat
Size No. 3 for saws 16-22 gauge	20.00	6 lbs.	Hatch

(With bench attachment, any size, $5.00 extra.)

The Hanchett Circular Swage Shaper is arranged for attaching to the bench the same as styles A, C, D and E swages, and is especially desirable where either of the above styles of swages is used, either for log, shingle or small circular saws. The shaper is easily adjusted to the circular saw. When the swage has done its work, it is removed from the pin and the shaper substituted. It is very easily operated and insures the strongest teeth, absolutely uniform in shape, smoother lumber and an easy running saw. The construction of the dies, right and left hand screw, slotted die adjuster and circular head are the same as the band swage shaper, differing only in the attachments adapting the shaper to attach to the bench.

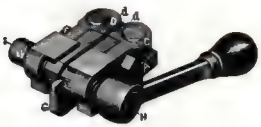


Hanchett Shingle Saw Shaper

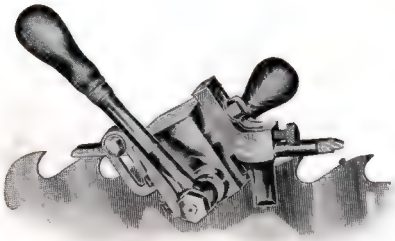
PRICES

		Approximate Shipping Wt.	Code Word
Size No. 1 for circular saws	5-13 gauge.....$25.00	9 lbs.	Hatchel
Size No. 2 for circular saws	12-18 gauge..... 20.00	7 lbs.	Hatter
Size No. 3 for circular saws	16-22 gauge..... 20.00	5 lbs.	Haul

This shaper for circular saws has exactly the same construction as our band swage shaper, except that the guides are arranged for circular instead of band saws. It is especially well adapted for shingle saws, for which it is widely used. It is absolutely accurate and can be operated very rapidly.



Nos. 1, 2, 3



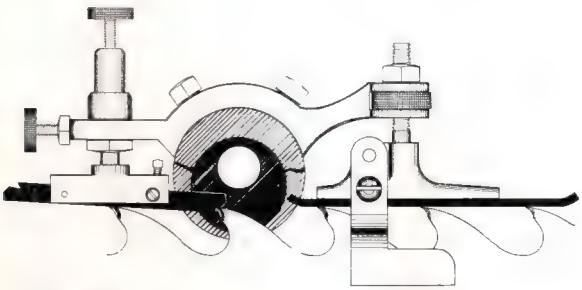
Nos. 4, 5, 6

Pribnow Swage Shapers

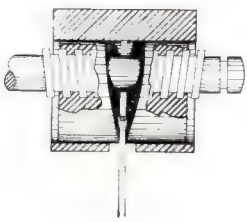
Nos. 1, 2 and 3 are old style—the original Pribnow Shapers.
Nos. 4, 5, 6, 7 and 8 are the latest improved Pribnows.

PRICES

		Code Word
No. 1, for band and gang saws, 12 to 16 gauge	$20.00	Heap
No. 2, for re-saws and shingle saws, 16 to 24 gauge	20.00	Heart
No. 3, for heavy band saws, 6 to 12 gauge	20.00	Hectic
No. 4, for circular saws from 6 to 10 gauge	25.00	Heddle
No. 5, for band saws, 10 to 16 gauge	25.00	Held
No. 6, for band saws 17 to 24 gauge	25.00	Hemlock
No. 7, for band and circular saws, 5 to 13 gauge	30.00	Heptagon
No. 8, for band and circular saws, 13 to 18 gauge	30.00	Herald



Cross-Sectional Side View of Hanchett Band Swage Shaper. Showing large dies with completely encircling head bearings, double end tooth stop, and long saw rest and guides, insuring perfect adjustment and control of the shaper and rapid operation.

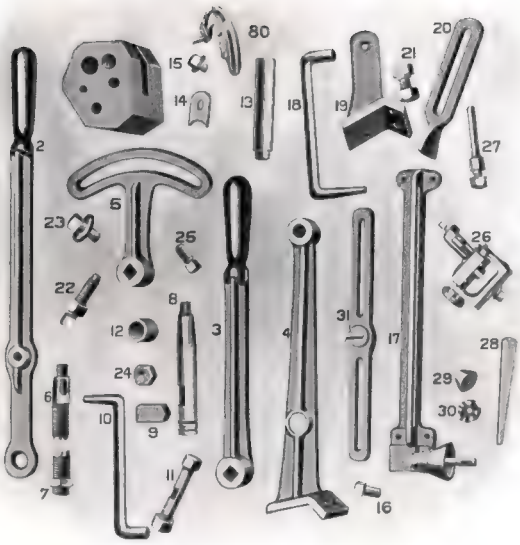


Cross-Sectional Front View of Hanchett Band Swage Shaper. Showing right and left screw thread operation of the dies, insuring equal pressure of the dies on both sides of the tooth and absolute accuracy in dressing the saw teeth.

For further description see page 75.

Hanchett Band and Gang Swage Shapers

		Approximate Shipping Wt.	Code Word
Size No. 1 for saws 10-13 gauge	$25.00	9 lbs.	Haunt
Size No. 2 for saws 12-18 gauge	20.00	7 lbs.	Have
Size No. 3 for saws 16-22 gauge	20.00	5 lbs.	Haw



Parts for Hanchett Circular Saw Swage

		Size Nos. 1 and 0	Size No. 2	Size Nos. 3 and 4
1	Head	$12.00	$10.00	$8.00
2	Die Lever	2.00	1.50	1.00
3	Clamping Lever	2.00	1.50	1.00
4	Bracket	3.00	2.00	1.00
5	(Slotted) Die Adjuster	2.00	1.50	1.00
6	Lever Clamp Screw	.65	.50	.40
7	Stationary Clamp Screw and Nut	.60	.50	.40
8	Eccentric Die	1.25	1.00	.75
9	Anvil	.75	.50	.40
10	Lever Rest	.75	.50	.40
11	Eccentric Bolt and Nut	.75	.50	
12	Hardened Steel Die Bearing per pair	1.25	1.00	.75
13	Punch for removing and inserting Die Bearings	.50	.40	.30
14	Die Latch	.20	.20	.15
15	Screw and Washer for Die Latch	.20	.20	.15
16	Cap Screw for Bracket, each	.15	.15	.10
17	Bench Casting, with Nos. 27, 28, 29 and 30	5.00	5.00	5.00
18	Back Rest for Style B	.75	.50	.40
19	Bracket for Style B	1.75	1.50	1.00
20	Front Rest for Style B	.75	.60	.50
21	Bolt and Nut for Front Rest	.50	.40	.30
22	Anvil Adjusting Screw and Nut	.50	.40	.30
23	Bolt and Washer for (Slotted) Die Adjuster	.25	.25	.20
24	Nut for Die or Clamp Screw	.10	.10	.10
25	Set Screw for Lever Rest	.25	.25	.20
26	Jointer	5.00	5.00	5.00
27	Bracket Pin and Nut	1.00	1.00	1.00
28	Jointer Key	.25	.25	.25
29	Saw Cone	1.00	1.00	.75
30	Step Washer	.75	.75	.75
31	Slotted Bench Casting	1.00	.75	
79	Combined Jointer and Side File	9.00		
80	Die Lever Stop	3.50	3.00	2.75

Parts for Nos. 1 and 0, and 3 and 4, though listed under one head, are of different size. Therefore always specify size of swage—whether No. 1, 0, 2, 3 or 4.

Saw Anvils, Leveling Blocks, Straight Edges, Tension Gauges and Hammers

Saw Hammers (Dog Head, Cross-pean, Combination, or Twist Face)
Price, any weight up to 3 lbs., **$2.25.** Over 3 lbs., **75c** per pound.

These hammers are of our own manufacture; hand forged from best tool steel, and handsomely polished and nickel-plated. Regular Machine Forged Polished Face Saw Hammers, **50c** per lb.

All anvils and leveling blocks are made in our own foundry from special iron, and fulfill the exact demands of the filing-room.

Straight Edges

Inches	4	6	8	10	12	14	16	18	20
Price, each	$0.40	$0.45	$0.50	$0.55	$0.65	$0.75	$0.87	$0.95	$1.05
Inches	24	28	30	36	40	44	48	52	54
Price, each	$1.36	$1.56	$1.65	$1.95	$2.10	$2.30	$3.00	$3.50	$3.70
Inches	56	60	66	72	84	96	108	120	
Price, each	$4.00	$4.60	$5.00	$5.50	$6.50	$7.50	$8.50	$9.50	

Leveling Blocks—(Surfaced Both Sides)

Size	Approximate Weight	F. O. B. Big Rapids	Size	Approximate Weight	F. O. B. Big Rapids
6x36x3 in.	180	$10.00	14x36x4 in.	490	$27.00
6x48x3 in.	225	12.50	14x36x5 in.	650	35.75
8x36x3 in.	230	12.65	14x48x4 in.	700	38.50
8x36x4 in.	315	17.32	14x48x5 in.	875	48.12
8x48x3 in.	300	16.50	14x60x4 in.	875	48.12
8x48x4 in.	400	22.00	14x60x5 in.	1090	59.62
10x36x3 in.	282	15.50	14x72x4 in.	1050	57.75
10x36x4 in.	375	20.62	14x72x5 in.	1300	71.50
10x48x3 in.	360	19.80	16x36x6 in.	720	36.00
10x48x4 in.	480	26.40	16x48x6 in.	1150	57.50
12x36x3 in.	340	18.70	16x60x6 in.	1560	78.00
12x36x4 in.	450	25.25	18x36x5 in.	810	40.50
12x48x3 in.	450	25.25	18x48x6 in.	1300	65.00
12x48x4 in.	600	33.00	18x60x6 in.	1750	87.50
12x60x3 in.	565	31.00	18x72x5 in.	1650	82.50
12x60x4 in.	700	38.00	20x36x5 in.	930	45.00
12x72x3 in.	730	40.00	20x48x6 in.	1450	72.00
12x72x4 in.	970	54.00	20x60x6 in.	1800	90.00

We have facilities for making anvils and leveling blocks any size up to 8 feet long.

Cast Iron Anvils—(Face Chilled and Ground)

	Height	Approx. Weight	F. O. B. Big Rapids		Height	Approx. Weight	F. O. B. Big Rapids
Round 6 in.	5½ in.	65	$10.00	Square 10x24	8 in.	580	$58.00
Round 8 in.	7 in.	110	12.00	Square 12x16	5 in.	270	27.00
Round 10 in.	8 in.	192	20.00	Square 12x16	8 in.	450	45.00
Square 5x 8	5 in.	60	7.00	Square 12x18	5 in.	300	30.00
Square 6x 8	5 in.	75	9.00	Square 12x24	5 in.	425	42.00
Square 6x 8	7 in.	110	11.00	Square 14x24	5 in.	440	44.00
Square 6x10	5 in.	85	10.20	Square 14x24	7 in.	625	62.00
Square 6x10	7 in.	135	13.00	Square 14x36	5 in.	710	70.00
Square 6x10	9 in.	165	15.00	Square 16x24	5 in.	510	51.00
Square 8x 8	5 in.	100	10.00	Square 16x36	6 in.	920	92.00
Square 8x10	5 in.	130	13.50	Square 18x24	5 in.	575	57.50
Square 8x24	5 in.	283	28.00	Square 18x36	6 in.	1030	103.00
Square 8x24	8 in.	450	45.00	Square 20x36	5 in.	970	95.00
Square 10x12	5 in.	160	16.00	Square 20x36	6 in.	1150	115.00
Square 10x14	5 in.	185	18.50				

Tension Gauges. (One Edge)

Convex or Concave, Standard, or Ground to Order.
Price, 4 inch at **$0.50.** Add 10c for each additional inch. (Two Edges)
Convex or Concave, or Combination Convex and Concave, or One Edge Straight.
Price, 4 inch at **$1.25.** Add 15c for each additional two inches.

Combination Steel Back Gauge and Straight Edge

Price, 4 foot at **$4.00.** Add $1.00 for each additional foot.
Handles, 50c additional.

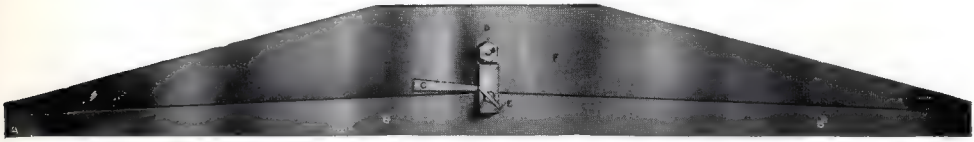
Hanchett Aluminum Back Gauge

Made of Aluminum.
Adjustable to any segment. Light, strong, accurate.
Price, 4 ft., **$7.00;** 5 ft., **$8.50;** 6 ft., **$10.00.**

No. 2 Hanchett Back Gauge

Needle always indicates exact degree of convex in back of saw.
Strong, neat, easy to handle, and absolutely accurate.
Price, 4 ft., **$7.00;** 5 ft., **$8.50;** 6 ft., **$10.00.**

Widemire Adjustable Straight Edge and Tension Gauge



For Circular Saws

Suitable for Leveling or Adjusting of Tension for any speed.
Standard size, 24 inches long for saws 44 to 60 inches diameter.
Price, **$5.00.** Weight, wrapped, about 2 lbs.; boxed, about 3¼ pounds.
Special Sizes—18, 20, 22, 27, 30 or 33 inches long, **$6.00.**

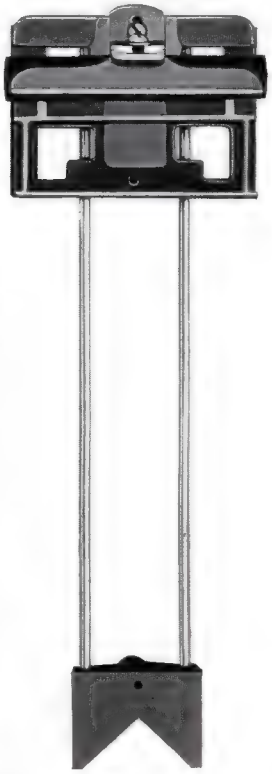
Adjustable No. 1

The No. 1 File is a very simple tool. The width of the set or swaged tooth is regulated by a single set screw. The clamp for holding the file is adjustable, permitting the use of any kind of file. This tool is especially adapted for Circular Saws. Price **$1.00.**

Hanchett No. 4

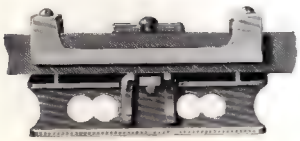
Combination Circular and Band Side File

This side file is a simple device for side-dressing band or circular saws. It is light to handle, being made of aluminum, and the file is adjustable to give any angle of dressing desired. It can be changed instantly from band to circular saws or vice versa. As a band only or combination side-dresser, we can recommend this tool as being highly efficient. Price **$2.50.** Band only, **$1.50.**



No. 3 Adjustable Side File

For Band and Gang Saws



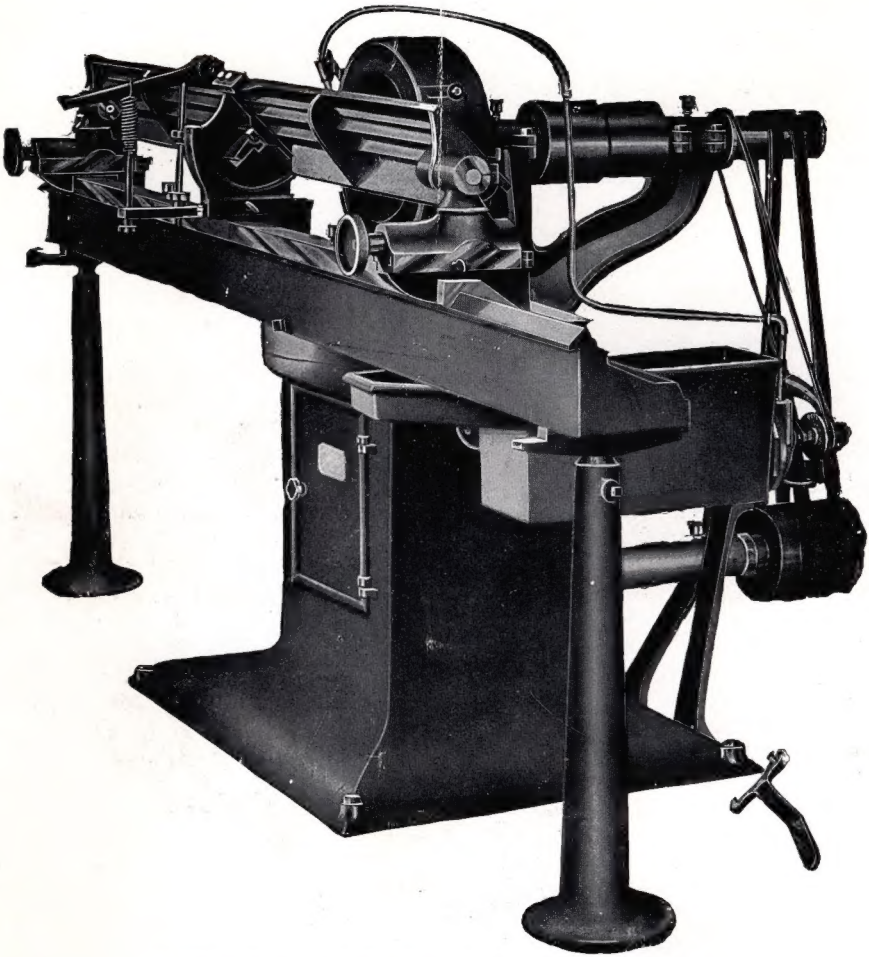
The No. 3 File is adjustable for holding 8-inch and 9-inch files, and so arranged that the file can be tilted to any desired angle. A gauge passes over the points of the teeth, bringing the file in proper position for doing the work. The No. 3 File is for all long saws. It can be used on any width of blade. Price **$1.00.**

The Hanchett Two Wheel Knife Grinder is a new type of grinder, embodying a number of important features in knife grinder construction which are now made available for the first time.

These machines are equipped with two grinding wheels for grinding two knives at the same time, thus doubling the service given. For single bevel knives, adjust the two arbors to the same bevel, and clamp in each side of the knife bar either one or several knives up to the length of the knife bar, and the machine will grind 52½ inches of knives in the 26¼-inch size or 60½ inches in the 30¼-inch size. For double bevel knives, set one arbor for one bevel and the other arbor for the other bevel and the grinder is thus always set for grinding both bevels. The adjustments are such that any bevel to which the machine is adjusted is always maintained; the wearing down of the emery-wheel does not change the degree of bevel, so that the machine once set is always ready regardless of changing wheels. Thin grinding wheels are used, 8 inches diameter by ½ inch thick, 1-inch arbor, with which rapid grinding can be done without heating the knives.

These machines are constructed so that all wear is taken up. They are full automatic, can be set for any length of travel up to the capacity of the machine, and emery-wheels adjusted to feed up automatically at any speed. Screw feed for the carriage, which is much superior to the ordinary rack and pinion feed, and insures an absolutely even, noiseless movement of the carriage. In operation these machines are entirely free from any jar or vibration and give a smooth, keen edge to the knives.

Gauges are furnished for placing the knives in the knife bar, so that there will be no variation in clamping the knives in the grinder. Place the gauges or guides one on each end of the knives with the edge of the knife resting against the top of the opening in the guide. Drop the knives into the slot in the knife bar until the guides rest against the clamp. Clamp the knives and remove the guides. Special countershaft furnished with each machine.



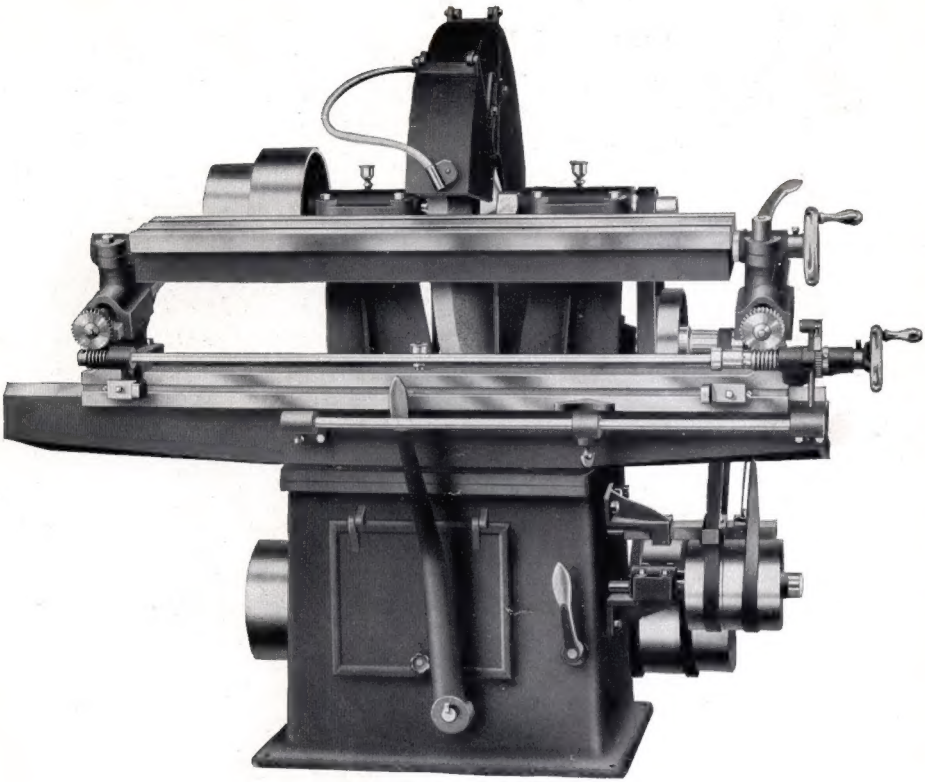
Extra Heavy Column Knife Grinder

Automatic with Spring Cross-Feed—Water Attachments

Size	For Knives	Crated	Boxed	Cubic Feet	Price	Code Word
No. 754	Up to 54″	1500 lbs.	1750 lbs.	60	**$200.00**	Image
No. 760	Up to 60″	1600 lbs.	1850 lbs.	66	**210.00**	Imbrue
No. 766	Up to 66″	1740 lbs.	1950 lbs.	68	**220.00**	Imitate
No. 776	Up to 76″	1800 lbs.	2000 lbs.	72	**230.00**	Impact

Tight and Loose Pulleys 5½″ x 4″. Speed about 1500.
Deduct **$10.00** if Water Attachments not wanted.
Countershaft **$15.00** extra.

The Grinder illustrated above is adapted to a variety of work, such as the grinding of veneer and planer knives, shear blades and similar long work. A flat bevel results when knife is run at right angles to emery-wheel spindle, and a concave grind when knife runs obliquely, the grinding being accomplished on the rounded edge of wheel. The machine is supplied with belting, automatic water attachments and a cup wheel 12 inches in diameter. The travel and reversing of carriage is automatic, the feed works within the column. The feed-up of knife to wheel is not an automatic screw feed, but is accomplished with two hand wheels, in connection with a lever and spring device, illustrated, which feeds the knife to wheel with an easy pressure. Always accompany order or inquiry with full information regarding the sizes of knives to be ground.



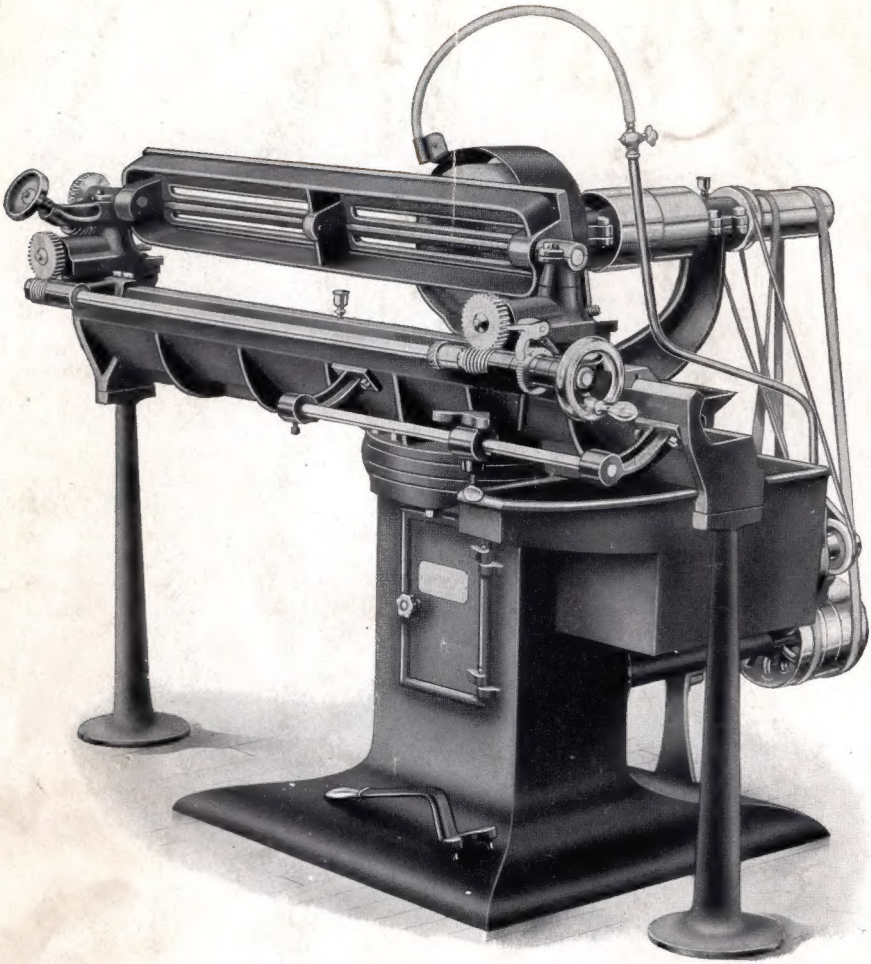
Full Automatic Knife Grinder--Water Attachments

Size	For Knives	Crated	Boxed	Cubic Feet	Price	Code Word
No. 926	Up to 26″	1650 lbs.	1900 lbs.	65	**$185.00**	Iambic
No. 932	Up to 32″	1700 lbs.	1950 lbs.	68	**195.00**	Ibex
No. 938	Up to 38″	1750 lbs.	2000 lbs.	71	**205.00**	Ibidem
No. 942	Up to 42″	1800 lbs.	2050 lbs.	75	**215.00**	Idea

Tight and Loose Pulleys 10″ x 4″. Speed 700.

Deduct **$10.00** if Water Attachments not wanted.

This machine is adapted to grind planer, paper, hog, veneer and cotton seed oil knives, shear blades, etc., of every description. It is compact, substantial, exact working and very rapid in reducing knives to a keen, sharp edge. Machines shipped complete with all internal belting, emery-wheel, and bolts for knives.



Full Automatic Knife Grinder—Water Attachments

Size	For Knives	Crated	Boxed	Cubic Feet	Price	Code Word
No. 826	Up to 26″	800 lbs.	950 lbs.	25	**$120.00**	Idiam
No. 832	Up to 32″	875 lbs.	1050 lbs.	33	**135.00**	Idle
No. 838	Up to 38″	950 lbs.	1100 lbs.	40	**150.00**	Ignite
No. 844	Up to 44″	1000 lbs.	1150 lbs.	43	**160.00**	Iguana
No. 848	Up to 48″	1050 lbs.	1200 lbs.	46	**170.00**	Ilk

Tight and Loose Pulleys 4½″ x 3¼″. Speed 1500 to 1800.

Deduct **$10.00** if Water Attachments not wanted.

Countershaft **$15.00** extra.

These machines are furnished very extensively to planing mills, box, furniture, wagon, carriage and implement factories of every description, ship yards, car shops, stove works, tanners, paper mills, printers, publishers, lithographers, oil mills, and in fact every manufacture or trade requiring a good grinding machine for either regular or special use.

These grinders are provided with automatic screw cross feed, variable in degree at will of operator, hand wheel adjustment for knife bar, automatic water attachments, post supports for ends of bed on 32 to 48-inch sizes, and equipped with all necessary internal belting, cup wheel, and bolts for knives.